CELTIC DEFENSIVE WEAPONRY IN BRITAIN & its Continental Background

by Graham Ritchie

Thesis presented for the degree of
Doctor of Philosophy,
to the Faculty of Arts, University
of Edinburgh

AUTUMN 1968

CONTENTS

VOLUME I

SUMMARY OF THESIS

This thesis is concerned with the defensive armour of the Celtic tribes on the continent of Europe (exclusive of Iberia and much of Italy) from the 5th to approximately the 1st century B.C., or to the date of their subjugation to Roman authority. British helmets, shields and examples of body armour are, wherever possible, discussed in this context and their continental analogies noted. The evidence provided by the arms themselves has been complemented by an examination of the representations of barbarian weaponry in classical sculpture and of the descriptions by Greek and Roman writers of battles with the Celts.

The helmets are divided into three main groups; the first consists of the conical helmets of La Tène I date which may owe their origin to local Bronze Age types. The second, which includes the types here labelled Castelrotto and Batina, dates mainly to the 3rd and 2nd centuries B.C., and the armourers appear to have adapted Italian helmet types current during the Celtic invasions of Northern Italy. The third group is of 1st century B.C. to 1st century A.D. date and consists of helmets of the Agen and Coolus types, the former found in Southern France, the Alps and in Slovenia, and the latter in Eastern France and Rhineland Germany. Some of the helmets of Agen type may show a number of features which may be compared to Roman pieces of Haguenau-Weisenau types; other features, such as the use of enamel are more distinctly Celtic. The lack of associated finds makes it difficult to date the Coolus type firmly, but it is important because it is the class with which the British helmets have most affinity, although each

British example is unique in some respect. Finally horned helmets are shown to be much rarer than was previously thought, and it is suggested that some of them were not intended for the battle-field.

The adoption of the shield also appears to result from the experience of the Celts in Italy and shields are found North of the Alps only from about 300 B.C. The diversity of the surviving remains of shields does not allow such a useful division into types as was possible in the case of helmets, and the chronological groupings are also less clear-cut. The British shields, because of their frequent use of elaborate bronze decoration, are distinct from the continental examples, but an examination of the structural features of these shields and of the art styles of their decoration has made possible their inclusion into the general European framework. The representations of barbarian shields on Roman auxiliary grave stelai of the 1st century A.D. show that the long oval shape seems to have been the most common form of practical shield at this time. From the 2nd century A.D., however, in North Britain a new group of shields, more rectangular in shape with a round central boss, is isolated here for the first time; the adoption of this type may be due to the influence of both Roman and Belgic ideas.

Three types of body armour are found in Celtic contexts, namely mail shirts, leather cuirasses and bronze corslets. Both mail shirts and cuirasses have the same shape and seem to have been secured by shoulder straps, decorated by some form of knob. The frequency with which this type of decoration appears on sculpture and figurines might make it possible to

interpret the small decorated roundels found at the shoulders of [illegible]riors in this light. Because of the use of perishable materials for the inner linings and crests of helmets, for shields and for many types of body armour, a number of features, such as the painted decoration on shields, can only tentatively be discussed. But the use of leather was probably much more widespread than the surviving evidence suggests. It is clear however, from the small number of helmets and of traces of body armour that the wearing of such arms was the prerogative of the chieftains and the leaders of the bands of warriors.

CHAPTER 1

INTRODUCTION

Warfare and weapons played such a large part in the life of the Celtic tribes that study of their military equipment has always been an important aspect of archaeological writing. The security and prestige of each tribe depended on their warrior bands and the amount of booty they amassed on raids further afield was the result, not only of their vigour and daring, but also of the efficiency of their weapons. This thesis intends to examine the defensive armament of the Celtic tribes on the continent and in Britain from about the 5th century to the conquest of the various areas by Rome. There are three groups of such arms, namely helmets, shields and body armour. The scheme adopted here has been to study the continental helmets and shields, then the British pieces and finally the surviving examples of the various types of body armour; a descriptive catalogue of British helmets and shields is included in volume II.

No attempt has been made to provide a background to Celtic societies of the La Tène period either in Britain or on the continent; this has been covered in a number of accessible works and it is unnecessary to paraphrase these. In chronological order the most important publications seem to be Déchelette (1914, ii, 2), de Navarro (1928), Grenier (1945), Powell (1958), Filip (1960/1962) and Piggott (1965). The changing way of life of the northern barbarians, seen from the material remains, and their historically documented incursions into Italy and the Balkans are implicit in this study even if the ground is not covered again.

The chronology of a collection of pieces discussed in this way, is a matter of some difficulty, as the wide geographical extent of such a study, involves the inclusion of local chronological schemes. The dates adopted here, for the period between the 6th and the end of the 4th centuries B.C., have been taken mainly from the following works; Frey (1955), Dehn and Frey (1962, 197ff.), the Situla Catalogue of the 1962 Exhibition at Padua, Ljubljana and Vienna, and Lucke and Frey (1962) and as far as possible dating has been expressed in broad absolute terms rather than in the terminology of chronologies having only local validity. For the later period the series of lectures on Swiss prehistory edited by Drack (1960) has been extensively used, with additional information gleaned from Hodson (1964) and Todorović (1966). Although an attempt has been made to offer some hint of the chronological extent of most of the classes of weapons discussed, there are many cases where no association has been recorded and the dating is thus unsatisfactory. But chronology is by no means the most important and certainly not the most interesting aspect of this work.

Almost any study of early armour depends on the sifting of evidence from three sources, the most important of which are the surviving examples of the weapons themselves. Representations of barbarian weaponry in classical sculpture provides a massive body of evidence, but this, like classical descriptive writing, must be closely evaluated in order that disproportionate stress should not be laid on merely conventionally recorded details. Thus, the nearer

in time the artist or writer is to the events that he is commemorating, the more reliable that evidence is likely to be. Trophies, which are thought sometimes to record in stone an actual layout of captured weapons are naturally better sources than the rather stereotyped barbarian sculptures of the Pergamene schools. Livy, who may even have had access to the diary of a participant is a more reliable source for the Galatian defeat in Asia Minor than he is for the earliest phases of the history of the Celts in Italy.

The tactics of the Celtic warriors in battle were often commented on by classical writers, such as Diodorus and Polybius, and the extraordinary vanity of at least some of the tribes, who advanced naked into battle, armed only with sword and shield, make a profound impression on classical authors and artists alike. This deliberate rejection of the protection, however little, afforded by a loose fitting cloak and trousers illustrates in extreme their dismissal of defensive armour. Only shields seem to have been generally permissible, whilst helmets and body armour may have been the prerogative of the warrior aristocracy. Offensive weapons, such as swords and spears, are thus not only much more commonly found than the helmets, shields and body armour to be discussed here, but also illustrate better the battle tactics of a greater number of warriors than do defensive arms. The latter naturally represent a negative attitude to battle from which it is more difficult to draw broad generalisations. The study of helmets, shields and body armour is further complicated by the fact that they might

often be manufactured, at least in part, of materials which do not survive frequently in the archaeological record, namely leather, wood and cloth. No attempt has been made to cover the complete field of classical representations of arm-bearing barbarians; the Pergamon school has been discussed in detail by Bienkowski (1908) and it may be suggested that, as the artists were portraying an idealised barbarian, such a sculpture is of value only in helping to interpret existing Celtic weapons and does not provide independent witness of battle array. The Celtic helmets, shields and body-armour of the stoa balustrade of the Temple of Athena Polias Nikophoros at Pergamon have been examined in some detail, as it seems probable that the sculptor recorded a set of actual weapons with considerable precision; it is also important from the point of view of chronology. It has seemed more useful to examine Schumacher's collection of the representations of Gauls and Germans (1911 and 1935) and to mention only those which seem to portray the extant weapons most closely.

The precision of the sculptors of the Pergamon balustrade may be compared with a number of monuments in Provence which are of Celtic and Roman craftsmanship. The complete documentation of the French material has been collected by Espérandieu and his successors in a Receuil Général des bas-reliefs de la Gaule Romaine. Jacobsthal (1944) and Benoit (1955) are the main sources of information on such Celto-Ligurian sculpture in Provence and their discussions stress the artistic affinities of these pieces;

because of the importance of these monuments to any study of body armour they have been re-examined at first hand and discussed again in detail (Chapter 7). The triumphal arch at Orange has recently been studied by Amy, Duval, Formigé, Hatt, Picard, Picard and Piganiol in a definitive publication, and their complete series of photographs and drawings of the trophies and of the arrays of weapons forms a most valuable source (Amy et al., 1962) and Roman sculptures from la Brague (Alpes Maritimes), Avignon (Vaucluse) and Narbonne (Aude) are discussed here as representatives of a much larger body of material collected by Espérandieu (Receuil, i, nos. 24; 234 and 236; 659 and 684).

The evidence afforded by Celtic coinage has not been used frequently, because of the great difficulty of disentangling distinctly native features from motifs present on the classical coins which were often their prototypes. It would be all too easy to suggest that weapons represented on coins were used on the battlefield when they have merely been copied from a Greek or Roman original. A more cautious approach is here employed and only when a useful comparison is possible, perhaps one not otherwise available, are the helmets, shields or body armour shown on some of the coins discussed at all. De la Tour (1892/1965), Lengyel (1954) and la Baume (1960) have, however, been carefully scanned for possible evidence.

Classical representations of arm-bearing barbarians in Britain, have been carefully examined for useful evidence and this has been incorporated in Chapter 6. The stelai from the Rhineland are shown fully by Schumacher (1935 for example nos. 11-18, 72-4, 80, 82-84); it is interesting

that the grave stelai from Britain illustrate spina or boss-and-spina shields whereas those from Germany portray oval shields sometimes with a spina but without exception with round bosses - the common Germanic type.

Many of the earliest useful studies of helmets are merely collections of illustrations or lists of examples with little or no further comment and the work of Franz von Lipperheide, Antike Helm (1896) may be cited as the classic example of this. It illustrates too one of the unfortunate features with which any such study has to contend, helmets of all dates have frequently formed the prize exhibits of private collections of arms, and provenance or association, always of secondary importance to the collector, have been forgotten. Léon Coutil's work on helmets at the beginning of this century deserves to be better remembered, though many of his larger papers are mainly lists of helmets, often unprovenanced. He ranks as one of the most important systematisers and he covers a wide range of types. Many of his papers, privately printed at Le Mans, remain comparatively little known, those published in 1902, 1912 and 1914 have been used most frequently here. His interest seems to have been fired by the important discoveries in North France, both of Bronze Age and Iron Age date, particularly Bernières-d'Ailly, Amfreville and Notre Dame de Vaudreuil.

Possibly the greatest impact on the study of La Tène helmets has been made by Paul Reinecke, whose first paper on this topic was written in 1898, and he retained an interest in helmets throughout his life, publishing important

contributions in 1940, 1942, 1948 and 1951, amongst others. Reinecke's discussion of the twenty-six helmets from Negau now in Slovenia is the only really comprehensive examination of any Iron Age group. It is surprising, however, that although the study of Bronze Age helmets has considerably advanced beyond the mere listing phase, no modern study of Celtic helmets of the La Tène period as a whole has been attempted and even when new helmets have been discovered (for example at Holiare and Nebringen) no general re-examination of the material has appeared since that by Déchelette in 1914. Jacobsthal's main, indeed only, interest was with artistic pieces and his study in 1944 includes only those helmets which contribute in some way to Celtic art (116ff.). Writing on the helmet as a piece of Celtic armour has remained very much in the style set by Dechelette in 1914 (1156ff.) and Hubert's volumes first published in 1932 and Grenier in 1945 follow not only the format of their illustrious predecessor, but also use his illustrations. Perhaps Reinach summed up the various problems most concisely when writing in 1896 (1430f.) he stated, 'L'étude des formes si variées que l'on a données aux casques ne saurait être fait exclusivement au point de vue chronologique ou géographique, car pour un grand nombre de casques qui se trouvent dans les musées, on ne peut déterminer avec certitude ni l'époque ni le lieu de leur fabrication. Les monnaies mêmes qui sont le meilleur guide, ne nous renseignent pas exactement, parce qu'elles reproduisent souvent des types traditionelles.' Reinach's terminology of the parts which make up a helmet has been

translated into English and explained at the beginning of Chapter 2.

It may be that in the past there has been a reluctance to admit that the number of Celtic helmets was sufficient to warrant detailed study, for frequently only conical and horned helmets are mentioned at all. On the other hand the method employed here has been to examine as many helmets as possible, with the geographical bounds stretching from Brittany to the Ukraine, and to attempt to classify a much larger and more catholic collection of material than has been attempted before, perhaps with the exception of Coutil. A number of helmets have in earlier studies been labelled Roman rather than Celtic, and 'Italic' has also frequently been used to describe such pieces as Tronoën or Amfreville. It will be stressed how difficult it is to rely on such terms, as the Celt was often receptive to new ideas in armament, and may often have copied the weapons of other peoples. One of the heartening features of this new examination has been the creation of a system of classification which does seem to have some geographical and chronological cohesion and into which two interesting unprovenanced pieces discussed in the Appendix (a) may be placed. As far as possible British helmets have been included in this scheme but in view of their rarity, individuality and lack of associated finds, such discussion is rather unsatisfactory.

The Celtic shield is well known from classical representations and it is perhaps the most frequently mentioned of all Celtic weapons in descriptions of battles with the barbarians. Thus its shape, size and general

layout were all well known even before 1910, when parts of a wooden shield were discovered at La Tène. Déchelette was able to compare this piece with the sculpture from Mondragon and with the many metal bosses - that part of the shield which most commonly survives. Thus the discovery of complete shields excavated under modern conditions, or the outlines of the shields, are among the most important additions to knowledge on this subject. In particular papers published by Vouga (1923), Rosenberg (1937), Kimmig (1938; 1940) and Krämer (1949-50) have provided a much broader discussion on such shields, than do comparable reports on newly excavated helmets. Déchelette also drew attention to the two complete sheet bronze coverings to shields from Britain, and it is interesting to note that he attempted to bring such British shields and helmets into the general European picture.

Early comment in Britain on shields and helmets sought to associate the objects with a Roman or Anglo-Saxon past. Harford describing the Polden Hill hoard, found in 1800, suggested that 'these ornaments belonged to some British chief in the Roman service' (1803, 93). Samuel Meyrick, describing the Witham shield, which had recently come into his collection found it impossible to contemplate these artistic proportions 'without feeling convinced that there is a mixture of British ornament with such resemblances to the elegant designs on Roman work, as would be produced by a people in a less state of civilisation' (1831, 96f.). Cuming suggested a Celtic rather than British context for the Battersea shield and he offers a vivid picture of the Thames-

side battle in which it was lost (1858, 330). A new standard of illustration and comment was set in 1863 with the posthumous publication of Horae Ferales by John Kemble. Exact illustration and detailed description superseded earlier techniques of presentation; perhaps in this Kemble and the editors (one of whom was A.W. Franks) were influenced by Baron de Bonstetten's Recueil d'Antiquités Suisses in 1855.

Most of the modern studies of British shields have tended to stress the artistic aspects of the more spectacular pieces and have ignored the plainer and more practical examples. This approach may be noted in the papers by Hemp and Fox (1928 and 1946). Savory's interim papers on the Tal-y-llyn finds are set in rather the same mould but they illustrate what must surely be the approach to be followed in the future, with metallographic analysis and a more scientific examination of the various objects. Chapter 5 must thus be regarded as one of the final statements of the older school, for the practical appearance of the shields and the art motifs present on some of them are evaluated from the rather subjective stand-point of typology. Techniques of manufacture are however being studied at present by Spratling. It is hoped that what is lacking in this way is balanced by the inclusion of material, which complements the rather partial view obtained when only the rich votive objects are examined. Chapter 6 is seen as a vital part of the argument for the representations of shields on Roman

auxiliary stelai, on the Antonine Wall distance slabs, on later Celtic, Romano-British and eventually Pictish sculpture provide much interesting and little known material.

Place names. As many of the earlier studies of helmets have been written by German scholars it is often the German version of the name of the find spot that is best known. Place names in Slovenia and in the Alto-Adige-Trentino province of Italy, areas which were formerly within the Austro-Hungarian Empire, have proved a particular problem as now the Slovenian and Italian spelling, or indeed name, must be preferred. The practice adopted here has been to employ the current geographical name and, as far as possible, spelling. Any translations or different spellings have been included for the sake of clarity - thus Castelrotto (Kastelruth) or Batina (Kisköszeg). In some cases this is a cumbersome system but it may be ignored by the reader without difficulty. Well known examples of such changes in place names, Cluj for example, have not been included. It is regretted that there are a number of spelling inconsistencies.

for	Rumania	please read	Romania
	Baratele		Baratela
	Tirol		Tyrol

CHAPTER 2

CONTINENTAL HELMETS

The constituent parts of a helmet were clearly outlined by Reinach in 1896 and some attempt has been made here to suggest the following terms in English; some of the main terms are shown in the fold-out diagram at the end of this volume. The cap forms the basic head covering (la coiffe or la calotte) and the meaning of the others is self evident, the neck-guard (le couvre-nuque), the cheek-piece (le garde-joue or la paragnathide). The top-knob (le bouton terminal) is the summit decoration of the cap. The ornamental disc, which often masks the attachment of the cheek-piece to the cap, most often situated above the wearer's temple, is here called the side roundel.

The scheme adopted for this discussion of the helmets worn by Celtic warriors on the continent may be outlined as follows -

i) conical helmets, mainly of La Tène I date;

ii) Italian helmets some of which were later adopted by or copied by the Celtic warriors;

iii) comprises three groups of helmets which owe their origin to Italian types and are found (a) in Northern France (b) in the Alps and (c) in East Europe; (b) and (c) are labelled the Castelrotto and Batina types respectively and all three groups date mainly to the 3rd and 2nd centuries B.C.;

iv) consists of those helmets of the final stages of Celtic civilisation and dates mainly to the 1st century B.C.;

the Agen group has a mainly southern distribution and finds of the Coolus group concentrate between the Rivers Seine and Rhine.

The scope of this chapter may thus seem very wide, but there are certain deliberate limitations or inequalities of emphasis. Only provenanced helmets are included, and it is hoped that the scheme produced may form a framework into which unprovenanced pieces may be placed. The geographical scope is limited to those areas of Celtic activity in, and north of, the Alps, thus the Iberian peninsula and most of Italy have not been included. Finds from Italy, however, play such an important part in the genesis of a series of types to the North and East of the Alps that section (ii) has been included to describe the helmets current before the Celtic incursions into Italy. These helmets, which the Celtic warriors must have seen in battle, were either copied or, after successful combat, acquired by the Celts from the bodies of their dead foes. The art of the contemporary bronze situlae of the North Adriatic area has been examined with the deliberately restricted aim of providing information on this subject, for these pieces, often showing weaponry, have recently been exhaustively studied by Frey and Lucke (1962).

(ia) Conical Helmets

Conical helmets have been discovered in two distinct geographical areas; in the West, one group of such helmets centres on the Marne department of France, and to the East, a less well-known series of helmets from the Austrian Alps may be discussed along with an unprovenanced example now in

the National Museum, Budapest (Map 1).

The best preserved example of the Marnian helmets is the superb piece from the chariot burial of La Gorge Meillet, Somme Tourbe (Marne) (Pl. 1) which was excavated by Fourdrignier in 1876, and his publication has served as a model for the description of subsequent discoveries in this area (1878). The bronze helmet, which is 37.7cm. in height, was found at the feet of a skeleton, which had been laid on the platform and along the pole of the chariot. The other weapons included a sword lying across the left leg, and four spears, also at the left side of the body; the warrior was found to be wearing a woollen tunic. The helmet cap and neck-guard were made from a single piece of beaten bronze, with a rolled-over edging round the complete circumference of the rim. The cast top-knob is composed of several ridges. Five embossed roundels at the base of the helmet form part of the decorative scheme - four large ones on the cross-axes of the cap-piece and a smaller one in the middle of the neck-guard. The two roundels at the temples have an important function as they camouflage the rivet by which the chin-strap knobs have been attached. The roundels have been fixed to the helmet (or at least planned) before the addition of decoration in tremolo which covers the lower half of the cap and the neck-guard. The decorative scheme consists of a series of squares divided into four L-shapes, thus constituting a central swastika pattern. This zone is bordered by a simple line of tremolo zig-zag at the top and above the forehead. On the neck-guard a linear hatching in alternate lines of incised and tremolo

ornament flanks the central roundel. The overall effect has been heightened by coral knobs which have formed the centre piece of each of the roundels and also of the chin-strap fixtures. Jacobsthal (1944, 178) notes that these fixtures on each side of the helmet at the temple have been for the attachment of cheek-pieces, but there is no evidence for any cheek protection on any of the helmets of this group and a simple chin-strap seems to be the most probable solution.

Lemoine in his publication in 1905, of the excavation of the chariot-burial at Châlons-sur-Marne (Marne) was considerably influenced by that of La Gorge Meillet. The illustration of the helmet has been redrawn from the remaining fragments in the museum at Châlons-sur-Marne and although only eight recognisable pieces of the helmet remain, it has been possible to reconstruct the diameter of the helmet and draw the neck-guard and chin-strap attachments with some certainty (Pl. 2, below). There is no evidence of the criss-cross decoration that adorns the helmet in Lemoine's illustration of the grave, nor indeed of the conical shape he has given it. It seems likely that, realising that the grave contained a helmet, he has drawn a representation of the classic chariot-burial helmet, that of La Gorge Meillet. Joffroy and Bretz-Mahler (1959, 25, fig. 21, 3), and Stead (1965, 260, fig. 1) have followed this drawing, but actual examination of the remaining fragments permits only tentative conclusions to be made about the helmet.

The chariot burial at Châlons-sur-Marne is clearly comparable to that at La Gorge Meillet both in plan and in

grave furniture, even to the inclusion of a handled knife, probably a meat-eating dirk, in both graves and the helmets were both placed at the knees of the skeletons. The immediate parallel for the Châlons helmet was that from La Gorge Meillet, but the latter is much grander; both have straight rims across the forehead and a neck-guard. Small rosettes on either side of the Châlons helmet, just in front of the point where the neck-guard joins the brim, serve as the attachment buttons for small rods and the knobbed ends of these appear under the brim as chin-strap hooks (Pl. 2, below). The decoration on the helmet has been very sparse and there appears to be none on the actual cap-piece. The two rosettes and the chin-strap knobs are decorated (although there is no coral work of La Gorge Meillet type) and have been wrought separately from the helmet, which was presumably beaten. The rosettes have two beaten concentric rings with a circle of tiny hammered ovals between them, and in the centre of each rosette there is a decorated knob. There is little evidence of the shape of this helmet and it is not necessary to assume that these two similarities with the La Gorge Meillet helmet make it essential to reconstruct a conical cap-piece, although this certainly remains one possibility. It is possible that if the complete helmet were extant it would be included among those discussed in section (iiia).

A conical bronze helmet was discovered in a chariot burial from Berru (Marne) in 1872 (Pl. 3, above). It is decorated with three bands of incised and dot-infilled motifs, two at the base of the top-knob, where there is a simple pattern of overlapping and rather flattened S-scrolls with,

immediately below this, a pair of end-to-end S-motifs which stand out against a dotted background. Round the base the same pattern has been employed, but the S-scrolls are more subdued and greater stress is laid on the peltae which are formed where the scrolls meet. The back of the helmet has been partly destroyed but the rim of the slight neck-guard remains. Above each temple, at the point where the neck protection begins, there is a small conical knob which has served as the attachment for the chin-strap and above this feature a rather rudimentary palmette has been incised, leaving areas of stipple behind and a central area of dotting within each lobe. The motifs and the technique of the decoration have been fully discussed by Frey in his study of the beak flagon from Besançon (1955, 12, 25).

A chariot burial from Cuperly (Marne) was published by Fourdrignier in 1880 (370ff.), and the iron tyres, horse bits, spear points, swords and large pots found in the classic Marnian chariot-burials were recorded. The helmet was placed on the legs of the skeleton and according to Fourdrignier, the helmet had been made of leather and this crumbled on exposure. Twenty-six bronze knobs (each 11mm. in diameter) remained in position round the base and neck-guard, and there was also a coral ornamented knob at the summit of the helmet. Fourdrignier further observed that the roundels were spaced out with a distance equal to their circumference between them.

A Marnian helmet which may be linked to that of Cuperly, as it was made of leather, is that from a chariot burial excavated in 1912 at Ecury-sur-Coole at the lieu dit of les

Côtes en Marne (Marne), but of this piece, only three small bronze fragments survive (Jacobsthal, 1944, 179, no. 138). Déchelette records that M. le lieutenant Bérard informed him that a leather helmet covered with thin bronze sheets was discovered, but that only fragments of it had been collected (1914, 1513n). Part of the rim survives probably because of the thickening of the bronze at this point, and this is decorated with two central S-scrolls and a rivet presumably serving as the attachment for a chin-strap; fragments of a leaf and cable pattern decorate the other two fragments. Although the helmet may have consisted of a leather cap with applied bronze work, it is also possible that the leather was part of the inner padding of a complete beaten bronze helmet. The remaining fragments give no certain evidence of the shape of the cap-piece of the helmet for the side knob and the linear decoration are comparable not only to La Gorge Meillet, which is conical, but also to the rounded cap of Prunay. The chariot burial also contained tyre fragments, phalerae, harness decoration, spears and sword fragments, and the complete list is given by Joffroy and Bretz-Mahler (1959, Appendix IV). They also include the object which is described as a shield-grip with coral inlay but as comparative pieces are unknown, it is not certain whether Thierot's original attribution was correct (1931, 38).

The discoveries of La Gorge Meillet, Cuperly and Berru established a type of helmet in the minds of the Marne excavators of the late 19th and early 20th century, and in the publication of fragmentary pieces such as those from Châlons-sur-Marne and Ecury-sur-Coole the vision of a La Gorge

Meillet type of helmet may often have proved too strong. Such considerations seem out of place today, and a more negative attitude to doubtful or uncertain pieces has been adopted in this study. The fact that an object was originally published as a helmet is no guarantee that this was its original function, and the table of finds from chariot-burials in the Marne published by Joffroy and Bretz-Mahler (1959, Appendix IV) and that given by Stead (1965, 96ff., Appendix II) should both be used with some caution. The information about many of the Marnian sites is in some respects unsatisfactory, due not only to techniques of excavation but also to the fact that the Museum at Reims was bombed during both World Wars and many of the exhibits and all of the records were either partially destroyed or lost.

The discovery of a helmet among the finds from the chariot burial from Condé-sur-Marne (Marne) has been mentioned by Joffroy and Bretz-Mahler (1959, 27) 'cocardes rehaussés de corail devaient cacher le départ de la jugulaire', and Stead also mentions this in his discussion of the tomb (1965, 97). The finds are said to be in the Musée Municipal at Châlons-sur-Marne, but a search in 1966 did no bring any such objects to light. Another chariot burial in Joffroy and Bretz-Mahler's list said to have produced a helmet is that from Sept-Saulx, lieu dit La Prize d'Eau (Marne), but like the Condé grave it can no longer be verified. It is mentioned in the literature on a number of occasions, perhaps most helpfully by Jacobsthal and Langsdorff (1929, 37) because of the beak flagon, which was said to be amongst the finds; the only pieces which appear

to have survived are fragments of harness, a bit, and a decorated disc, illustrated by Déchelette (1914, 1201, fig. 513). The private collection to which the finds belong - the Nicaise Collection - which used to be housed near Angers, may now in part be in the National Collection at St. Germain-en-Laye, and Bretz-Mahler placed the helmet tentatively in her list without having seen the piece itself. It seems safer in view of the uncertainty surrounding both these pieces to exclude them from the present discussion.

The reconstruction of the Cuperly helmet after Fourdrignier's description of what he found during the excavation was possible because of the similarity of the layout round the rim and the top-knob with the Berru and La Gorge Meillet helmets. The description reminded Fourdrignier of another grave he had excavated, where there were roundels of a similar nature to the 26 discovered at Cuperly, at Thuizy (Thuisy) in the Marne department, and he suggested that these may have belonged to a helmet of the same type. In the absence of the pieces and in default of further documentation the helmet cannot be included with any confidence in this discussion. Joffroy and Bretz-Mahler note that Thuizy is the only example of a possible conical helmet discovered in a flat grave, and this may confirm that Fourdrignier's original suggestion is rather doubtful (1880 a and b; Joffroy and Bretz-Mahler, 1959, 27). Some of the remarks made by the latter authors on this subject should now be amended. Not all the helmets from the Champagne chariot burials of La Tène I are strictly conical, and Prunay for example has been included here in an intermediate group.

The complete absence of cheek-pieces suggests that the side roundels are the decoration to mask the chin-strap attachments and not cheek-piece hinges.

A small group of conical helmets comes from East Europe but our knowledge of two of them is woefully incomplete; one, now in the National Museum of Hungary, Budapest, appears to be unprovenanced although it is sometimes said to come from the Turoc district of Slovakia in North Hungary (Reinecke, 1940, 66; Jacobsthal, 1944, 178f., no. 137). Another helmet is thought possibly to come from Hallstatt, but no finds associated with it are known. Although this piece is very fragmentary, there appears to be no doubt about its conical shape. Only that from Grave 44, Dürrnberg bei Hallein (Salzburg) has a satisfactory provenance (Pl. 3, below), and was found with a rich warrior burial with the remains of a two-wheeled chariot to confirm that the deposit is comparable to those from Châlons or La Gorge-Meillet. The helmet has a tiered top-knob and the profile, rather more sinuous than the Gorge Meillet example, rises to a less elongated conical summit. The height of the helmet is 25.5cm. compared to the 29cm. of Berru or the 37.7cm. of La Gorge Meillet, which is the tallest of the whole group. The Dürrnberg neck-guard, divided from the cap only by a low ridge, and the chin-strap attachment at each temple show how firmly this E. Alpine piece is linked to the Marne examples.

The dating of such conical helmets to the earliest phase of La Tène culture is not in question and it is likely that, because of the similarity in plan and contents of the graves, La Gorge Meillet and Châlons should be coupled with

Somme Bionne which is dated to about the 420's B.C. by an attic red-figure kylix. Frey also links the helmet from Berru with the Somme Bionne burial as far as date is concerned (1955, 35). It is likely that the end of the group may be represented by the helmet from Prunay discussed in section (iiia) and dating surely to some time between these pieces and the Amfreville helmet of about the late 4th century B.C.

Map 1. 1, Conical Helmets; 2, Later North French Helmets.

△ CONICAL HELMETS.

1. Berru, Mont de Bury (Marne).
2. Châlons-sur-Marne (Marne).
3. Cuperly (Marne).
4. Ecury-sur-Coole, les Côtes-en-Marne (Marne) Grave 13.
5. La Gorge Meillet, Somme Tourbe (Marne).
6. Dürrnberg bei Hallein (Salzburg).
7. Hallstatt (Oberösterreich).

■1. Amfreville-sous-les-Monts (Eure).
2. Prunay, les Marquises (Marne).
3. Tronoën, St. Jean-Trolimon (Finistère).

(ib) Notes on the origin of the conical helmet

Conical helmets are found in the greatest quantity in the chariot burials of the Marne and it is interesting that in the Swiss Hallstatt D burials studied by Drack there is no sign of headgear of any sort, nor is there any evidence in the earliest La Tène burials in the Rhineland (1958, 8f.). Is it perhaps possible that the Marnian chieftains have copied a style current in North France or at least have they employed local armourers with a distinctive technique? The helmet type known in this area from Urnfield times was the comb or crested helmet; the bell type of helmet has a distribution that is too far to the East to affect the style of helmet adopted by the Marne Celts in the later 5th Century B.C. and the simple cap helmet is too basic a shape to be relevant (von Merhart, 1940, Maps 1-3). The top-knob decoration of most of the bell-helmets might be thought to be ancestral to the tiered knobs of the La Tène conical ones, but this is surely too obvious a crown finish to be helpful.

Undecorated examples of comb helmets, which are found only to the North of the Alps, may be further subdivided according to the shape of the crown, namely those whose crown is rather more rounded and those which come to a distinct and deliberate point. The make-up of both types however is the same; each consists of two sheets of bronze beaten to shape to form the two sides of the head piece. At the rim the two pieces overlap and are riveted together; the two or three rivets may be masked by elaborate pointed heads, (as on Helmet 1 from Biebesheim (Hesse)) (Jorns, 1965,

pls. 1-3). Across the crown of the helmet, extending from front to back between the sets of rivets, the two bronze sheets are hammered together and one side folded over the other, to form a flat crest. A small Italian figurine demonstrates the way such a helmet was worn on the head with the crest running from front to back. This is illustrated by Coutil along with a surely votive deposit of such pointed helmets from Bernières d'Ailly (Calvados) (1914, 4, pl.i). Nine helmets were discovered in 1831 or 1832 piled in threes and laid out in a triangular formation; 'ils etaient disposés en triangle, par groupes de trois' (Coutil, 1902, 71f., pls. ix and x). Apart from this find at least two other examples of pointed crested helmets may be noted, one from the confluence of the Rhine and the Main at Kostheim (Pl. 4), and another from the River Oise at Armancourt - none unfortunately with any association. Of the more rounded helmets of this type, that from Theil near Billy (Loire-et-Cher) seems to have been discovered with a bronze pendant-belt or chain, a winged axe, the fragment of a mould for this type, and a gold plaque which has been likened to that from Courtavant Grave iii (Coutil, 1914, 5; Sandars 1957, 114, 151).

The presence of such pointed comb helmets in the Eastern Alps may be shown by the fascinating model ritual cast from Strettweg (Stiermark) on which, amongst other figures, four horsemen are depicted flanking the central 'goddess' portrayed with arms upraised to support a low basin balanced on her head (Schmid, 1934, 27, Tafs xvi-xix). The horsemen are naked and are armed with a spear, an oval shield with

a round central boss and a helmet. The helmets, though certainly pointed are distinctly ridged from front to back rather than rising with an even profile. This difference in profile between the cap and the pointed ridge clearly seen in Schmid's Tafs. xvii-xix shows perhaps that the representations are of comb rather than conical helmets, and a more recent illustration also brings out the artist's portrayal of the two rivets at the front of the helmet, thus confirming that these are two-piece comb-helmets (Piggott, 1965, pl. xxxi).

Schmid stresses the Italian background of the helmets worn by the horsemen (1934, 29), and Frey notes the piece along with a number of works influenced by Etrurian orientalising ideas from about the late 7th century (1962, 10), but there seems to be no need to insist on this as far as the helmets are concerned. They are plain, unlike the decorated Italian pieces found in Etruria from about the 9th and 8th century, which were themselves introduced from the North (Trump, 1966, 172, pl. 78; the rods are not chin-strap attachments pace, 273). Pittioni is also doubtful about too dogmatic an Italian origin for the Strettweg model and suggests that this stress is an example of a general 'italische Faszination' (1954, 621). The 6th century B.C. date for the Strettweg grave may however be paralleled by a well-known Italian find - the shield-fitting from the Rio Carpena, Forlì on which are depicted two warriors armed with round shields and spears, wearing pointed helmets with a ridge rather like that illustrated here from the Main near Kostheim (Pl. 4). On one of the North Alpine situlae, that

from Kuffarn (Niederösterreich), there are scenes which show horsemen and charioteers wearing long-plumed conical helmets and several of the charioteers on the upper frieze of the Situla Arnoaldi from Bologna wear tasseled helmets of this type. They have given rise to the suggestion that the Marnian conical helmets may owe their origin to the situlae or rather to the way of life shown on them. Both these situlae however seem to date to after 400 B.C., and though the idea of such helmets may be older in North Italy than the situlae suggest these pieces cannot be used to support a North Italian origin for pieces like La Gorge Meillet or Berru.

The absence of conical helmets in Central or East Europe, which can be seen to be ancestral to the Marnian ones, as opposed to these representations of crested helmets, suggests that this is a distinct addition to the Celtic panoply of the North French chieftain, and it is not necessarily a cultural trait whose origin should be sought in the East. The East Alpine examples might thus be seen as the beginnings of the movement eastwards, but the finding of two of the helmets from Hallein and Hallstatt is as likely to suggest the exchange of that symbol of particular prestige - the helmet - for that essential commodity - salt.

An interesting sidelight on such pointed comb helmets and one indication of their date are the examples shown on grave stelai from S.W. Iberia, in one instance along with a V-notched shield of 8th century B.C. date. These occur on the stelai from Santa Ana de Trujillo shown with a round shield and Valencia de Alcantara III (Caceras) (Almagro, 1966,

66, fig. 20; 114, fig. 38; 170ff.; Coles, 1962, 158f.). Fragments of a pointed crest of a helmet of this type seem to have been discovered among the finds from the Huelva, dated by Almagro to 750-700 B.C. (Inv.Arch., E.1 39-(39) no. 274). These rather long range contacts are not as isolated as they might at first seem, for U-notched shields are shown on the Certosa situla from Bologna dating to the early 5th century B.C. but these shields are oval and the contact is presumably not a direct one (Coles, 1962, 162).

(ii) The Italian Background.

The position of Celtic helmets in Italy is difficult and, although an almost complete list of provenanced helmets may be presented from the North of the Alps, it is not within the scope of this study to attempt this for the South. The types of helmet, which the Celtic warrior bands must have seen in Italy during their initial advances across the Alps and later those which were manufactured for and worn by those Celtic chiefs who settled there, make, however, a most important background for the understanding of the origins and various shapes of the helmets found in areas which form the subject of this study more directly. Jacobsthal stated the problem very concisely; his group A 'comprised helmets, the Celtic origin of which is proved by their purely Celtic outline or ornament', and Group B comprised those which were worn 'either by Celts fighting on Italian soil or by warriors of other nationality to whose taste this good armour appealed' (Jacobsthal, 1944, 116). This latter group he took to be 'the result of collaboration between Etruscan and Celtic artisans in an Italian workshop' (ibid., 118). The only Italian example which he included in the former group was that from the burial vault at Canosa.

It is interesting to begin, however, by examining the helmets current in North Italy and the Alps in the 5th century B.C., and the warriors illustrated on the bronze situlae from the head of the Adriatic form a suitable basis for this. These representations of soldiers fall into three chronological groups, the earliest of which is not to be dealt with in detail but includes the Benvenuti

situla from Este of early 6th century B.C. date. The works of the second group belong to the early 5th century B.C. and these include the Bologna, Certosa, Providence situlae and the Vače belt plate. The final group is as much as a century later and includes the Arnoaldi situla from Bologna and the Baratele plaques. The lowest frieze of the Benvenuti situla, below zones of decoration of wine drinking, weight lifting and animals, shows warriors with their captives. Shown from left to right are a horn blower, a taunting comrade with two spears, a further spearman and a horse-drawn chariot with its charioteer; the vehicle has five-spoked wheels and light upright sides. The final scene shows three spear-bearing warriors with round shields bringing in three captives naked and bound, two of them with round shields hanging at their backs. These warriors are helmeted with small caps with crests, but the whole scene is rather schematically shown.

Frey and Lucke group together the art styles of the Certosa and Providence situlae and the belt-plate from Vače and, using the lekythos from the Certosa burial as a guide, date them to the earlier part of the 5th century (1962, 46, 59). Four types of helmet are shown on these pieces, and, although they belong to the period before any Celtic invasion or incursion into Italy, it is interesting to note the relationship of these illustrations to the helmets themselves, as it allows for a more confident discussion of the later situlae, on which it has sometimes been suggested Celtic warriors are themselves portrayed. Four types of helmet are shown on this group and all are to be found on the Certosa situla: (a) straight-sided conical helmets,

(b) helmets composed of discs (Pl. 8, above), (c) bowl helmets with a brim, and (d) helmets of this bowler-hat type with a crest and plumes.

(a) The straight-sided conical helmet with a chin-strap seems to be a type peculiar to the lower Po valley; on situlae it is known only on the Certosa and Providence pieces, but there are full size examples from Oppeano Veronese and from the River Po near Cremona. The latter is decorated by a frieze of spear-brandishing horsemen, themselves wearing helmets with long spiky crests. From the objects found with the Oppeano helmet Jacobsthal suggested a date for this small group of about 500 B.C. (1944, 141, pl. 256a and b; Situla Catalogue, 1962, no. 20). A phallic bronze figure found 'near Landeck' in the Tirol is shown wearing a helmet of this type and the small figure is depicted holding dumb-bell weights in both outstretched hands (Pl. 6, below, left). The exercise shown, possibly one in which one contestant tried to pull over the arm of his adversary, is shown on a number of situlae, and it is interesting that a crested helmet often seems to be the prize (von Merhart, 1932, 56ff., Abb. 4; Pittioni, 1954, Abb. 517). North of the Alps the statue from Hirschlanden of 6th to 5th century date illustrates a conical head-piece of exactly this type (Zurn, 1964, 224ff., pl. xxxix).

(b) Helmets made of bronze discs fixed to a wicker-work cap are known from a number of sites in Slovenia including Sentvid (St. Veit) Tumulus VI, grave 13, and Šmarjte (St. Margarethen); there are also two examples in the

Ljubljana Museum and an unprovenanced helmet in the Naturhistorisches Museum, Vienna. The St. Veit example is constructed on a wicker-work cap with four discs riveted round the base, an identical one on the crown and a further eight smaller discs filling the interstices. It is most likely, as indeed the Sale Catalogue of the Mecklemburg Collection suggested, that a further inner protection for the head in the form perhaps of a leather padding would have been essential (ed. Mahr, 1934, 60, 116). The other finds from this grave include a star-shaped bronze pendant, four amber objects, an iron socketed axe and a spear-head. The ceramic material is not described. The St. Margarethen helmet consists of a wickerwork base onto which six discs of bronze have been riveted and this is crowned by a further disc with a knob on its summit. The spaces between the discs have been infilled with small bronze nails to provide additional protection. Only the pointed crown of the helmets on the Certosa <u>situla</u>, one of which is shown on Pl. 8, above, is in any way different from those described above. It is interesting to note the disc in this illustration which seems to form a cheek-piece and the band which meets the cap above the warrior's temple which is at the same time a chin-strap and the attachment for the cheek-piece. Sprockhoff has labelled this the <u>Laibach</u> type of helmet and he suggested a 6th to 5th century date (1926, 293 and pl. 88a for one of the examples from Ljubljana/Laibach).

(c) The axe-wielding horsemen on the Certosa situla, and on

the Vace belt plate are wearing bowler-hat helmets and an unassociated helmet of this type comes from Hallstatt (Kromer, 1959, Taf. 199, 3). But these are closely linked to

(d) those shown with flowing plumes; these plumes are fixed, front and back, either to small perforated knobs, or onto hooks fashioned in the shape of animal heads. The pair of ridges across the crown of such helmets as that from Hallstatt, Grave 259 and from Magdalenska Gora, Tumulus VII, Grave 39, serve to keep the strip (on which the plume is fixed) firmly in position over the top of the helmet. A similar function can be ascribed to the pairs of figures with arms raised which are found on the crown of helmets from, for example, Magdalenska Gora, Tumulus IV, Grave 3. A similar bowl helmet with a brim from Magdalenska Gora, Tumulus XIII, Grave 55 has a plume attachment in the shape of an animal and the whole crown of the helmet is fluted. It was found associated with a <u>situla</u> and the grave seems to date to the first half of the 5th century B.C. The Hallstatt helmet from Grave 259 has been dated to the beginning of the 6th century B.C. and as it lacks the flat brim it is almost certainly an early example of this type. It might be suggested that this group originated in the East Alpine area and such helmets appeared rather later, adopting a wider brim, in Slovenia and in the area at the head of the Adriatic. References to these helmets have been provided in Volume II.

The second main group of pieces in situla style which illustrate warriors seems to date to the early 4th century

B.C. and its most important representative is the *situla* Arnoaldi from Bologna which was found associated with a number of Attic red-and black-figure vessels. Frey and Lucke, amongst others, suggest that the shield shape of the foot-soldiers is indicative of Celtic types and that warrior bands of Celts are illustrated here. The rectangular shield with rounded corners and the spindle-shaped *spina* with central boss is certainly a type used by the Celts. The bowl helmets, round shields and spears, as well as the tunics can be seen to belong to the general background of *situlae* motifs and weapon traditions which embody some measure of Hallstatt influence. The shields which belong to the horsemen of the Baratele plaques also belong to the strip-boss and *spina* type; the plaques are considered to be rather later in the 4th century in date (Situla Catalogue, 1962, 29). If the suggestion that the shields on the Arnoaldi *situla* proclaim the foot-soldiers as Celts, it must be stressed that the helmets and tunics are local and that the barbarian warriors must have adopted the weapons of North Italy.

Only one group of Iron Age helmets has been the subject of exhaustive study, and Reinecke's exposition and discussion of the twenty-six helmets from Negau, which were discovered in 1811, is one of the most complete articles written on this whole topic (1942). Although the Slovenian name of the site ought now to be preferred to the German one, Negau has entered so completely into helmet literature that it would be pedantic to suggest a change; the modern geographical

description of the site may however be noted; Slovenian- Negova, Ženjak, Sv. Benedikt v Slov. goricah, German - Negau, Schöniak, St. Benedikten in den Windischen Büheln. Reinecke was able to trace twenty-three of the helmets discovered, and in his consideration of the date and context of this hoard he listed all the then known helmets of this type, as well as many other Alpine and Slovenian examples. Reinecke's paper is also important as a source of information about sites in areas which were within the Austrian Empire until 1920, notably the South Tyrol, now the Alto-Adige-Trentino province of Italy, and Carniola and Istria, which now form Slovenia and part of Croatia in Yugoslavia; a number of important sites from these regions have never been fully published.

Negau helmets have been found in three main areas, Central Italy, Slovenia and the Alpine Valleys. Gabrovec in the most recent study of the group, following the excavation of a grave at Stična in Slovenia, distinguished two main types, an Etrusco-Italian and a Yugoslavian (1965). The Etrusco-Italian type, for example those from San Martino in Gattara (Pl. 5, above) and Dovadolo in Romagna, consists of a ridged cap with incurving base and a thick rim. The rim is flat, and the helmet would sit squarely on the head, possibly kept in position by a chin-strap, but without cheek-pieces or neck-guard.

Gabrovec included helmets of two sub-types in his Yugoslavian group and examples of both may be found in the Negau hoard itself; (a) consists of a ridged cap with an incurving base from which extends a flattish brim with a

curled over edge, (b) has similar caps, but with a thickened brim, and some examples, which may be grouped with this type, have in addition, a raised bronze crest running from front to back across the helmet. Both decorated and undecorated examples of group (a) have been found; the decorative motifs include palmettes, cable patterns and concentric circles in incised and stamped techniques (Negau, nos. 1-20 Reinecke, 1942, 132). The Negau hoard numbers 21-23 are shown to be examples of group (b) by their thickened brim and no. 23 also has a raised crest. It was the association of this example with others of the Yugoslavian group and the similarity of their decoration that led Gabrovec to link these two sub-types together. A characteristic example of this crested type may be illustrated here from Igis (Graubünden) (Pl. 5, below), and this group with a raised bronze ridge or crest is described as the Igis type.

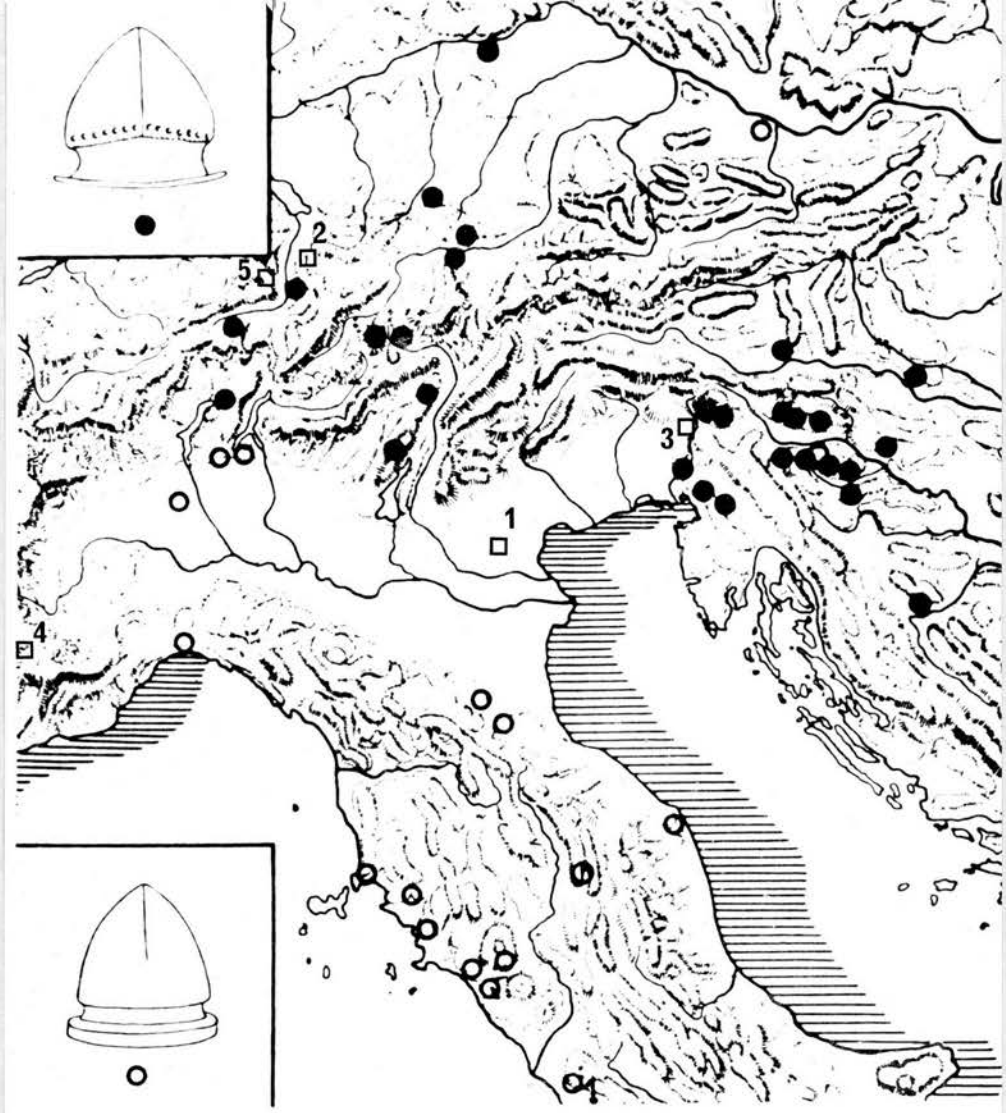
Reinecke (1942, 127, 163) considered that the background of such helmets was to be sought in the Etrusco-Italian type without cheek-pieces or neck-guard and as an example he cited the bronze helmet of Hieron of Syracuse with an inscription on it which records his victory over the Etruscans at Cumae in 474 B.C. (Kemble, 1863, pl. 12, 1; BMGGRL, 1929, 80, fig. 73); and this still seems the most probable origin.

The span of this class is shown by a number of well-dated associated finds including the burial from San Martino in Gattara (Pl. 5, above), dated by Attic red figure ware to circa 450 - 430 B.C., and that from Dovadolo. In Slovenia,

(burial no. 104 at Stična) a Negau helmet of the Italian group was discovered along with a sheet-bronze belt-plate and pottery of the local Hallstatt D 2/3 period; a mid-5th century B.C. date might be suggested. Two examples of the Igis type however from Graves 119 and 262 Giubiasco (Ticino) were discovered with objects of mid 1st century B.C. date (Ulrich, 1914, 585, pl. lxxiii, 1; ibid, 295, pl. lxxx, 2; Reinecke, 1942, 154f.). The long life-span of this type of helmet is perhaps one of the most remarkable features of the group.

The studies of Reinecke and Gabrovec noted above make it unnecessary to discuss the Negau group more fully; and not all of the helmets come from contexts which fall within the limits of this thesis. A large proportion come from Etruscan areas and it is most likely that the Negau helmet was adopted by the Celtic warriors from this source, from about the 4th century B.C. There is no evidence for the manufacture of this type North of the Alps, and work-shops in Etruria and Slovenia are the most probable. The helmets found to the North or in the Alps may well be spoil from a transalpine foray; possible hoards of this type may be noted from Sanzeno and San Maurizio.

A series of small statuettes of warriors armed with such helmets has not been studied before in detail. These figurines were deposited in one instance at least in a temple and at Idrija in a grave and they may be the equivalent of the model shields and swords from temples in England and elsewhere. It is because of the careful representation of the helmets and also of the body armour of the warriors



Verbreitungskarte der Negauerhelme: ● die südostalpine Reihe,
○ die etruskisch-italische Reihe.

Map 4. Negau Helmets (Gabrovec, 1962, Tav. xxxii) and Figurines with Helmets of Negau type.

□ FIGURINES WITH HELMETS OF NEGAU TYPE

1. Baratela, Este (Veneto).
2. Gutenberg, Balzers (Liechtenstein) (Pls. 59, above left, 60).
3. Idrija pri Bači, Grave 25 (Idria bei Bače) (Pl. 59, below 2).
4. St. Dalmas de Tende, Mont Bego (Alpes Maritimes) (Pls. 59, below, 1 and 67, below).
5. Vild, Sargans (St. Gallen) (Pl. 59, below, 3).

that they are of particular relevance to this examination. The distribution of this series of warrior statuettes corresponds closely to that of Negau helmets (Map 4).

1. Baratela, Este (Veneto).
2. Gutenberg, Balzers (Liechtenstein) (Pls. 59, above left, 60).
3. Idrija pri Bači, Grave 25 (Idria bei Bače) (Pl. 59, below 2).
4. St. Dalmas de Tende, Mont Bego (Alpes Maritimes) (Pls. 59, below, 1 and 67, below).
5. Vild, Sargans (St. Gallen) (Pl. 59, below, 3).

The small bronze figure from St. Dalmas de Tende found without association in 1908, is crudely modelled with a small round head surmounted by a bowl-helmet with a raised crest. Two depressions on one side of the crest suggest that there may have been some additional ornament. Part of the helmet has been cut away to make room for the two eyes and the nose of the face. The mouth is shown just underneath. The arms are upraised and hooked and may originally have held a spear. The only other features which are shown on this small figure are the belt and the toes which are roughly incised and the knees which are given a pointed appearance.

A bronze figure from Vild, Sargans wears a helmet which seems to be of Negau type though the slightly concave and ridged cap-piece is also reminiscent of the Strettweg examples. It is decorated with a band of hatching and by concentric circles on the cap; this motif is also found on the chest of the figure. The arms are missing but, by the way they have been severed, it seems likely that they may have been jointed in a manner also found on one of the Gutenberg figures.

The most important series of finds from Gutenberg Balzers in Liechtenstein, from a possible temple site, consists of seven small bronze male figures as well as a boar and a stag, which have sometimes been discussed as helmet mounts. Two of the figures stand on a small bronze plate with a spiked base and the feet of the third are spiked; the reason for such spikes may be clearly illustrated from the finds from the temple of the goddess Rehtia at Este where such figures are shown standing on a clay block.

The largest of these figures, known as the 'Mars of Gutenberg' stands 12.8cms. in height and wears a short cuirasse and a ridged Negau helmet of the Igis group. One arm is upraised and hooked as though to hold a spear, and a rivet in the other suggests that it too has held a weapon. The close similarity between the representation of the legs and toes of this fugure with that of St. Dalmas de Tende may also be noted. The helmet is of particular interest because of the additional protection for the neck which is shown; Reinecke (1942, 127 n) suggested that this was an attached neck-guard, but von Merhart in the original publication suggested that this was a projection of the inner padding and this latter does seem to be the more probable solution. The slight nicking bordering this piece may be compared to that round the cuirasse, and both may represent some form of stitching. The Celtic appearance of the face is heightened by a drooping moustache and also perhaps by the portrayal of the warriors in a phallic pose connected probably with the ritual nakedness of the Celt in battle.

Grave 25 in the cemetery of Idrija pri Bači contained a small bronze figure of this type. Reinecke placed this

grave in the second group of burials from this site, which he dated to the early 1st century A.D. (1942, 141 n.) and apart from the figurine a fragment of a Certosa fibula, three small bronze earrings, a fragment of sheet bronze and a small bronze stud were also found. The figure wears a helmet of Negau type and a belted leather tunic. The arms, one outstretched, the other raised up, may be compared with the Gutenberg figures and also with the series from Este. The portrayal of the helmet is of interest as it shows clearly the position of the helmet on the head, and the definite lack of cheek-pieces.

An interesting article by Krämer should also be noted for it deals with a series of fibulae of Early La Tène date in the South Tyrol (Alto Adige) and the East Swiss Alps particularly the Ticino and Graubünden cantons (1960). The helmets are of Negau type with the distinct ridge of the Igis group, and Krämer includes the Gutenberg 'Mars' in his discussion (Pl. 6, below right). The fibulae especially Taf. 1,2 are decorated with running triscele patterns which may be compared particularly to the sword-scabbard from Sanzeno and to the helmet from Amfreville. The dating of the phases of the Alpine Iron Age has been attempted by Frei, and he dated some of these fibulae to a La Tène C phase. It is equally possible, however, that the various representations of such helmeted figures have a chronological span which, like the Negau helmet group itself, may extend from an Early La Tène date to the 1st century B.C. (ed. Drack, 1960, 35, pl. 16, 30-32).

It has recently been suggested that the incursions of

the Celtic warriors and tribes into North Italy may begin rather earlier than was previously thought, on the historical evidence alone and penetration across the Alps, however small the groups may have been, may well have taken place in the 5th century (Chevallier, 1962, 357f.; Ogilvie, 1965, 702f., 715). Burials of the later 5th century B.C. such as San Martino in Gattara, Moscano/Fabriano and Dovadolo are particularly important because of the helmets and the associated weapons discovered in them. At San Martino in Gattara, Bermond Montanari has recently excavated a burial, under a cairn, of a six foot tall warrior with a Negau helmet of Italian type (Pl. 5, above). The other finds included a single Etruscan greave, two spear heads, fire-dogs and a cauldron of Central European type, as well as a bronze crater of mid-5th century type, a Greek red-figure cup and askos. Such a weapon grave with the accoutrements of an after life feast are much more features of the Celtic way of life than of the Etruscan, and the burial might be that of a chieftain of much the same date as La Gorge Meillet or Somme Bionne. Frey has also suggested that the break in Greek imports in the East Po area in the mid 5th century may be due to Gaulish invasions about this time.

The grave group from Moscano/Fabriano, which is now in the museum at Ancona may be that of a Celt surrounded by objects, including fine pottery, a stamnos and a tripod, illustrating the increasingly Etruscan way of life the settled chief adopted, but the helmet and the sword in its decorated scabbard are clearly Celtic types. The pottery dates the tomb to the late 4th century B.C. and the scabbard

may be compared with that from Grave xxii from Filottrano (Jacobsthal, 1944, no. 103).

Jacobsthal noted that the torc from the Filottrano burial seemed to be a product of the same workshop as the Waldalgesheim torc, and that both were found in graves which were in date towards the end of the 4th century B.C. It is also interesting to record that Jacobsthal suggested that the cemeteries of Montefortino, Filottrano and Osimo revealed a stable Celtic civilization dating to the decades before the defeat and annihilation of the Senones in 283-282 B.C. (1939, 98, 101f.) and Frey suggests that burial in these cemeteries probably begins about the middle of the 4th century B.C.

A series of helmets, which seems to have its origin in Italy has been likened to the racing jockey's peaked cap, but the 'peak' seems in fact to be a neck-guard and thus 'jockey-cap' is ~~in fact~~ rather an unsuitable label. This type consists of a cap-piece, which is brought to a pointed crown, on top of which there is a knob, very often decorated with a leaf pattern; the neck-guard and the rim may also be simply decorated, and there are frequently two holes at each side by which cheek-pieces have been attached. Helmets of this type both cast and beaten in bronze are by far the most numerous of all Iron Age forms - unfortunately frequently without association - and they are the most commonly encountered prehistoric helmets in collections of arms and armour. It is very seldom that they can with certainty be shown to be Celtic, although a proportion probably are, and it may be inferred from the weight of distribution

in Northern Italy that this represents the centre of manufacture. Many were listed by Coutil (1914, 14ff.) and the number has increased particularly in Italy with finds at Locri, Sanzeno nell 'Anaunia (Alto-Adige-Trentino), and Piano delle Granate (Populonia) (Notiz.Scav., 1927, 359, fig. 1; 1931, 428f., fig. 25; 1961, 100ff., fig. 40). The last mentioned account describes the helmet as the characteristic Etruscan type of 4th to 3rd centuries B.C. and lists further examples, but, although current throughout much of North Italy at this time, it is probably unwise to suggest that any one of the various political groups had a complete monopoly. Helmets of this type have been found on the battlefields of Telamon (225 B.C.) and Cannae (216 B.C.) but it would be unwise to be dogmatic about the nationality of the wearers. The Cannae example has been provided with large drooping crests which issue from either side of the cap and may be related to the winged helmets examined later (Coutil 1914, 16, pl. viii). Similar crests arching upwards this time to form horns, decorated with berried rosettes in repoussé, were found at Borgo Taro (Bologna) (Chevallier, 1962, pl. xlii, fig. 4), but there is no evidence that this is a Celtic piece, and a number of such antenna helmets, including sea-horses and springs, have been listed by Coutil (1913).

The problem of the interaction of the various groups in Northern Italy is obviously a fascinating one and the impacts of Italian types can only be hinted at in such a study as this which deals only with defensive armour. It will become clear that the Celtic debt to Italian helmet types was considerable (the warriors may also have been introduced

to the shield in Italy). Re-publication and modern cataloguing of the Celtic material in Italy is, however, a prerequisite for any revaluation of Celtic influence on North Italy or Italian influence on the Celts. The suggestions here about the Italian material are of necessity tentative. But it is worth remembering that even if the Senones were wiped out in the early 3rd century, a Celtic civilisation continued in the Po valley and later in the foot-hills of the Alps till the early 1st century A.D. (Chevallier, 1962, 368ff.).

Italian helmets have been studied in detail because they provide the prototypes of a number of features found in later and more distinctly Celtic groups. The 'jockey-cap' helmet may well have one source in Gaulish centres in Italy, for example round Montefortine, Filottrano and San Ginesio, where only cemeteries have so far been excavated. It has also been called the Montefortino type (Rieth, 1965, 162). Cheek-pieces, which first appear in this group, replace the chin-straps of the earlier helmets north and south of the Alps. It may even be that the metal hinge is first used in this way in Celtic and Etruscan contexts. Although the appearance of the Celts may well have been a stimulus for the use of cheek-pieces, it is impossible to say who originated them until actual work-shops are discovered. The slashing Celtic swordsman may have attacked the organised troops shown for example on the Certosa and 'Providence' situlae in a way to which they were unaccustomed. It might be argued that an actual hinge mechanism is an unnecessary refinement; many steel helmets in historical times have cheek-pieces

which move on leather straps, but the hinge is clearly used on the Umbria and Gottolengo helmets (Pl. 7) and may be seen on the unprovenanced cheek-piece, now in the British Museum (Jacobsthal, 1944, 180, no. 145). The cheek-piece has the characteristic triple circle decoration on an embossed bronze covering on an iron lining; at each end along the flat top-edge the bronze folds round a pin and it is cut away in the centre leaving the pin free to engage that part of the hinge which is attached to the cap. These cheek-pieces are 12.5cm. long and 10.5cm. broad, those on the helmet from Umbria are 13cm. long and they would thus provide good protection to the ear and part of the cheek without reducing side visibility. For those helmets whose cheek-pieces were hinged in this way a fixture on the cap was essential and, like the chin-strap fixture on conical helmets, it was often accentuated by a side roundel. The simple roundel itself may become an important focus for decoration and, with the helmets from Gottolengo and Umbria as the most striking examples (Pl. 7), such elaboration may be designed to complement the cheek-piece itself. The side roundel and the elaboration of this into a side-attachment which creates an artistic balance or even exactly mirrors the cheek-piece, subsequently became an important feature of the decoration of Celtic helmets. This may be noted especially in three groups of Italian jockey-cap inspiration helmets like Amfreville in the west, and the Castelrotto and Batina groups in the Alps and East Europe respectively.

The 'jockey-cap' helmet from San Ginesio may be taken

as an example of the simple cap with a small neckguard, and a side roundel which serves as an attachment rivet for the cheek-piece (Notiz. Scav., 1886, 44, Tav. i, fig. 2; Baumgärtel, 1937, fig. 5), and there are countless examples of this type in Italy. Some are elaborately decorated and these are, to some extent at least, the work of Celtic craftsmen and have already been studied in detail by Jacobsthal (1944, nos. 148-151) and by Lantier (1955, 228ff.) and there is no need to illustrate or describe the helmets in detail here.

The helmet from Umbria (Pl. 7, above) is important because of the layout of its decoration; it has an iron cap and an iron backing to the cheek-pieces which have been hinged to the cap, and the attachment loop is still riveted to it. This rivet fixture has been masked by the usual sort of bronze roundel but the decoration of the roundel has been flamboyantly increased to enclose it in a lyre, and from the head of the lyre issues a small round featured face flanked by S-scrolls. Traces of a bronze band decorating the rim still survive (Jacobsthal, 1944, 180, no. 144).

One of the most important recent additions to our information on Italian helmets has been the publication of the cheek-piece and fragment of the cap-piece from Gottolengo (Brescia) to the West of Lake Garda, in the territory of the Cenomani (Rampinelli, 1964-6, 61ff., figs. 1 and 2). (Pl. 7, below). The helmet comes from excavations undertaken in 1925 and as yet unpublished; the fragmentary cap is iron and the cheek-piece, decorated with three roundels and a leaf pattern, is bronze. The side-roundel

by which the cheek-piece hinge has been attached is further decorated by bronze sheet with a lyre enclosing the roundel. The S-scrolls of the lyre have birds' heads with long beaks and their eyes have been two of the rivets by which the bronze has been fixed to the cap. Above the lyre and flanking a central drop-motif arch a pair of gamma curls.

The gammas meet in the centre and the outer arms of each terminates in a curl. The presence of this motif on this particular type of helmet is of some importance as the lyre-shaped side-piece and the curl pattern are to be found on the Amfreville helmet in North France. Its provenance North of the Po is also useful as it is closer to these areas where the subsequent types are found, especially the Trentino, than the Umbrian example.

Decoration on the helmet cap-piece is not confined to elaborate bronze work, and Baumgärtel in her description of the helmet from Grave x at Filottrano noted that 'the surface-decoration of the helmet consisted of an arrangement of thick, half-spherical nail-heads, but unfortunately the pattern is no longer traceable. On the edge of the helmet over each ear-piece, a nail seems to have been set in the centre of a concentrically fluted bronze disk. It is true that at present these nails appear to be set, not straight above the ear-pieces, but one towards the brow and the other towards the neck-piece, but this we must attribute rather to the clumsiness of the restorer. This seems to have been the start of a wide row of plain-nail heads running right up the head-piece to the point. A similar row ran along the brow.' (1937, 26). The helmet lay to the right of the

body along with a sword and two spears on the left. The burial is that of a warrior with all the necessities for the funeral feast. The helmet is of interest as nail decoration on the cap was to become an important feature of the Batina group.

The other helmets from Filottrano are listed by Baumgärtel; that from Grave xix still shows traces of ornamental nails, though the helmet itself is badly corroded. From Grave xii a highly ornate bronze piece with cheek-pieces and an elaborate iron crest support or 'hat-tree' still survives; this helmet has been fully described by Jacobsthal, (1944, no. 147).

One 'jockey cap' helmet is worthy of special mention as it comes from Slovenia - from Bela cerkev, Šmarjete, (Weisskirchen, St. Margarethen); attached to the cap-piece is a single triple circle cheek-piece and between the roundels there is palmette decoration which Jacobsthal described as classical and Etruscan (1944, 118). The helmet which was found in 1882 is in the collection at Ljubljana and is illustrated by Déchelette (1914, 1162, fig. 488, 1) and full references are given by Vinski-Gasparini (1959, 291, n. 74); it seems most probable that the fragmentary cheek-piece is wrongly reconstructed in this illustration and is attached upside down to the side roundel.

Reinecke published an important article on the 'jockey-cap' type in 1948 when drawing attention to a bronze helmet found near Mogila Tokmak in the Ukraine in October 1941 in the midst of a Second World War battlefield (Pl. 6, above). The helmet was discovered in a shell crater in a kurgan,

and seemingly associated with it were the very fragmentary remains of scale armour of bronze plates and rings, as well as a number of pieces of weaponry of rather more recent date. The shell seems to have disturbed what must have been a warrior burial. The shape of the Ukraine helmet may, however, also be compared with that from Flüren and a number have also been found in the Western Mediterranean area where there are examples, among others, in the museums of Marseille and Montpellier. Reinecke mentioned the balustrade of the temple of Athena at Pergamon as illustrating a comparable piece, but the helmet to which he refers may be shown to belong to a more distinctively Celtic type here discussed as the Batina group (1948, 93).

A complete assemblage from the Ukraine including a rather similar 'jockey-cap' helmet was found at Bougakom, Ananiev (Kherson) where a warrior burial was uncovered (Ivanova, 1926, 100ff.). Reinecke dates this grave to very late La Tene times or the very beginning of his 'Kaiserzeit' which in general terms would probably suggest the first century B.C. (1948, 94), but the chronology of the Celtic finds in Russia has recently been critically examined by Rieth (1965, 162f.). The helmet which is described as of Montefortino type is linked here with those from Silivaş and Turoc, although neither is a strictly valid comparable piece.

It may be interesting to note that the helmets from West Russia from Mogila-Tokmak and Bougakom are of more specifically Italian type, seemingly unaffected by the motifs or layout of those of Castelrotto and Batina types, and neither helmet would be out of place in a 4th or early 3rd

century Celtic cemetery in Italy. For this reason perhaps the late dating suggested by Reinecke for such finds need not be followed, although the differences between the two Russian helmets and the Romanian examples mean that no support for a 3rd century date can be sought from this quarter. The similarity between the Montefortino helmet from the near Graves ix and x and the Hateg piece shows that the contact is not impossible. One example of Montefortino type is 'said to have been found in Attica' (Jacobsthal, 1944, 116n), and this is now in New York; but as Jacobsthal is rather tentative about the Provenance ('this can neither be ascertained nor refuted'), the helmet is not good evidence for direct contact between Italy and the Russian Black Sea coast via the Mediterranean. Rieth envisages Celtic contact with West Russia beginning about 300 B.C. and continuing into the 1st century B.C. and he notes a number of sites in Dacia from which finds comparable to the South Russian discoveries have been made (1965, 162f.). The sword found in the cemetery of Neapolis in the Crimea may be compared to a number of West Romanian examples; this grave suggests contact between Celt and Scythian in about the 2nd century B.C. or even rather earlier, and it has been put forward that it may even represent a recruited Celtic swordsman in a Scythian milieu.

The gold statuette of a Celt approximately 4.5cm. in height, which is now in an American collection, portrays a warrior bearing a helmet of this type, an oval shield with strip-boss and spina and a sword. The shield is disproportionately large for the figure, for it reaches his shoulder, but it is of classic La Tène II type and was paralleled by

Klindt-Jensen to the Cività Alba examples. de Navarro in a footnote to the publication of this piece dates the figure to the latter half of the 3rd, or the 2nd century B.C. (Klindt Jensen, 1961, 53, pl.v.). It may be interesting to compare this statuette with those from the Alps wearing Negau helmets discussed earlier.

In 1955 Lantier published a helmet, unprovenanced except in that it 'was found in excavations made in Italy in the presence of General Bonaparte.' (Lantier, 1955, 228, pl. xxviii). The helmet is of bronze and, although beaten from one piece, there are three structural parts which make up the helmet - a conical cap and at the base of this there is a deep neck-guard which is almost parallel to the neck, and at the front a double grooved brim. Between the neck-guard and brim there is an arch-shaped opening which would leave the complete ear unprotected were it not for an additional piece in the shape of a webbed foot with seven toes of some imaginary animal or bird.

There are three bands of incised decoration, the lowest of which is a line of pendant hatched triangles; a plain band divides this from a cable pattern and the top-most band runs round just below the crown where there is a hole for fixing a top-knob. Incised motifs are also roughly executed in the plain zone between the two main areas of decoration and these include degenerate palmettes. Apart from the strange webbed foot an unusual feature of this helmet is the arched opening at the ears. This can be paralleled on very few helmets from the Celtic area although it is known on a number of so-called Calcidian, Phrygian and Greco-Illyrian

examples. A previously unpublished example from the Camp de l'Etoile, (Somme) has a very similar deep neck-guard and slighter headband below a low ridge and an ear opening. Lantier fails to realise that this feature is unusual in his attempt to suggest a background for the unique webbed foot. The incised cable decoration is used on helmets from Filottrano and Montefortino, and from Perugia there is a helmet of rather similar shape which, though undecorated, shows that the Le Marois helmet is not totally isolated (Coutil, 1914, 15). The final example of this group is an unprovenanced helmet from the Lipperheide collection, and it is of interest as the chin-strap hook remains in position (ibid. 15). The absence of cheek-pieces and chin-strap fittings may suggest that this small group is early, but this is virtually unprovable although the Eastern similarities of the ear-opening, particularly the Illyrian examples, date to about the 5th century B.C.. Only two things really link these four helmets to this study; the decoration on the Le Marois helmet, which is comparable to the Celtic examples from around Ancona, and the find-spot in the Somme department for the helmet from the Camp de l'Etoile.

A carnelian intaglio from Lullingstone villa (Kent) portrays a winged Victory writing on a shield with a simple tree-trunk trophy behind her (Toynbee, 1964, 373f., pl. lxxxv). Toynbee notes a curious crest-like excrescent on the Victory's head and is generally unhappy about the piece. Was the artist copying, not very faithfully, a coin type? This 'excrescence' is none other than a toed foot in the manner of the Le Marois helmet. A most unusual feature of the

Victory's helmet is the vertical ribbing which covers its sides. The intaglio was found in a depression in the floor of the second century kitchen of the house, along with three sesterces of Trajan and Hadrian (JRS, 1(1960), 234).

(iiia) Amfreville and Tronoën

Three French helmets form a small intermediate group - one is related to the conical helmets of the first part of this study and the other two to the Italian examples just discussed, in particular to those from Gottolengo and Umbria. The helmets from Amfreville and Tronoën may in fact be the representatives in West Europe of a class comparable to the Castelrotto and Batina types which will be examined subsequently, their distribution is shown on Map 1 and the numbering follows that employed there -

1. Amfreville-sous-les-Monts (Eure) (Pl. 9).
2. Prunay, Les Marquises (Marne) (Pl. 8, below).
3. Tronoën, St. Jean-Trolimon (Finistère).

The Prunay helmet was found in a chariot burial from the cemetery of Les Marquises; a gold bracelet from the burial was 'destroyed' by the workmen who discovered the site, but Coulon in a rescue excavation found fragments of pottery, fragments of an iron tyre (28cm. long and with a wheel diam. of one metre), a bone with a rectangular perforation, an iron hook and the helmet. One complete pot is illustrated; it is 28cm. in height and has a rim diameter of 16.5cm. - a pedestalled vessel decorated with three zones of linear incised ornament, - and it is of interest because such a pattern forms a band at the base of the beaten bronze helmet. The helmet, which measures 23.5 by 16cm. and 14cm. in height, has a bowl shaped cap-piece surmounted by a three-tiered cast top-knob. The neck-guard is a continuation of the cap and is only differentiated from it by the band of incised ornament which runs round the base of

the cap; the complete helmet is edged by a thickening in the beaten bronze which forms a low outer flange (4 by 1cm). At each temple, just in front of the neck-guard there is a bronze coated rivet which holds in position the iron chin-strap fixture. The incised decoration consists of two schemes, the first forms a band at the base of the cap and the second a series of compass-drawn scrolls just above the chin-strap rivets. The former is a two-part zone divided by three pairs of longitudinal lines - the area between the upper pair is divided into a series of plain rectangles by vertical strokes; the lower zone has been regularly criss-crossed, and the triangles at each edge have been infilled by hatching leaving a line of plain lozenges in the centre. A similar band of ornament encircles the top-knob.

The decoration above each temple is very faint, but a form of palmette centred on four compass drawn circles is just visible. The decoration is comparable to the palmette and flanking S-scrolls of zone A of the bronze beak-flagon from Besançon Museum, and the neck ornament on an Etruscan flagon now in the British Museum to which Frey draws attention is even closer in concept (1955, Taf. viii, Abb. i). The side palmette springing from a pelta shape is already a feature of the decoration of conical helmets, for example Berru, where a similar design is incised just above the chin-strap attachment. The Prunay helmet is clearly linked to such conical helmets by the layout of its decoration, by its tiered top-knob and, indeed, by its association with a Marnian chariot burial. Frey dates the Berru and Somme Bionne burials to the 420's B.C. (1955, 30) and, although it seems likely that the Prunay helmet should post-date the

main body of conical helmets, there is no evidence to show what the actual date of this burial is.

Jacobsthal divided those Celtic helmets whose origin might be proved by their decoration into two groups; one comprised the conical helmets of the first part of this chapter which have as he put it 'a peculiar long-drawn-out shape' (7-10 in his list) and the second group comprised Celtic copies of Italian 'jockey-cap'/Montefortino helmets; the Prunay, Amfreville, Ecury-sur-Coole, Tronoën, Silivaş and Canosa helmets belonged to this group. Prunay and Ecury-sur-Coole have already been examined and their relationship to conical helmets from the Marnian chariot burials stressed. The Silivaş helmet, linked here to the Castelrotto group of helmets, does seem to belong to a group of imitations in the Alps and in East Europe of this Italian prototype and the Amfreville and Tronoën examples occupy a similar position in N.W. Europe. The helmet found in an old channel of the River Seine at Amfreville-sous-les-Monts in 1841 is one of the most elaborate of all Celtic helmets. The cap-piece is beaten bronze and rises to a slightly pointed summit; the top-knob has not survived although the seating by which it has been attached is still visible. A bronze neck-guard was riveted to the cap. The cap itself has been covered by two hoops of open-work iron and a central hoop of bronze; the neck-guard has also been covered by an iron open-work overlay. The uppermost iron hoop, just at the base of the top-knob has not survived intact; but a line of tiny gold rosetted pins in the centre of circular studs of enamel which held the hoop in position remain, and the panned traces of a tendril pattern are still visible. The lower band,

which runs round the base of the helmet comprises first an open-work of tendrils springing from triangular joints, and the complete pattern forms a setting for enamel. Henry describes this as a sort of cloisonné with broad flat divisions and the enamel applied in large surfaces 'without timidity' (1933, 76). The enamel has at present a pinkish-yellow and grey colouring but in the middle of the last century Viollet-le-Duc among others described the colours as white, green, blue and red; but it is uncertain whether the colours have actually altered with exposure to the air or whether their descriptions ought to be dismissed as fanciful (Coutil, 1902, 83; 1914, 1f.). Above this field of enamel decoration there is a row of circular enamel studs and in the centre of each a small gold pin with a milled head to fasten the iron hoop to the bronze cap-piece; then there is a small band of wave pattern which divides this decorative scheme from that of the central band. This bronze band has three main zones of decoration embossed upon it and upon these a covering of sheet gold foil has been impressed; the definition of the pattern on the gold is rather less clear than that on the bronze beneath (Pl. 9, below). The join in the gold is just above the temple decoration at the point where the band is narrowest. The central motif is a free-hand expression of tendrils, curling from triangular joints with the circular terminals of the tendrils adopting a motif which also forms the centre of the joints. On either side of this is a line of a pattern dubbed by Jacobsthal 'Locken' or curls, and edging these are rows of small dots.

The ornament on the neck-guard survives less completely but has consisted of two pairs of fleshy interlocking S-scrolls which tail off towards the pointed ends of the guard in a

further series of thinner tendrils. Between the S-scrolls are tiny asymmetrical tendrils particularly well illustrated by Jacobsthal (1944, pl. 81); these are of some interest as irrational ornament of this sort based on the scroll and the triangular joint, is the most important feature on the neck-guard from Silivaș near Cluj.

Above each temple and just in front of the neck-guard there is a lyre-shaped opening in the remaining appliqué ornament and the mark of a missing side decoration is tantalisingly clear. It has consisted of two back to back S-scrolls making up the lyre, a triple leafy flourish at the top and a single tear drop in the centre of the lyre.

It may be noted at once that there is a difference between the side or temple decoration of the Amfreville and of the Berru and Prunay examples, for the three lobe decoration of the former springs from a lyre pattern and is a very unimportant part of the ornament whereas, on the other two pieces, it plays a major role and springs either from pelta or scroll motifs. The lyre motif is, however, related to the examples from Gottolengo and Umbria discussed above, and the lyre encloses the roundel by which the cheek-guard hinge is attached to the cap-piece. As the cheek-pieces of these Italian examples do not exactly mirror the decorative side-piece, there is perhaps no reason to suppose that had the Amfreville helmet been so provided, the guards would have followed the shape of this side decoration.

The helmet from du Chatellier's excavation at Tronoën, St. Jean-Trolimon (Finistère) is incomplete, and only a portion of the cap-piece with the top knob and one cheek-piece survive. Both are iron with a covering of thin

repoussé bronze work; on the cap the decoration consists of three bands of ornament divided by zones of small circles. The upper and lower bands of the fragment are simple curls shaped like the letter 'h', and the central band is made up of a line of club-shaped motifs. The round top-knob and the iron base are badly corroded. The cheek-piece is made up of an iron back-ground covered with a bronze sheet; its decoration consists of three rosettes with the club-shaped motif of the cap and a number of dome-shaped rivets by which the bronze has been attached to the base. The club-shaped motif, which is a variant of the pattern discussed by Jacobsthal under 'Some odd Motives' (1944, 76), may possibly have a Hallstatt ancestry, though he is not absolutely definite about this, and it may be compared to the pattern on the side roundels from La Gorge Meillet (Pl. 1). The triple rosetted cheek-piece is obviously Italian in origin, and the decoration and technique of manufacture are almost identical to those discussed in the previous section.

'Locken' or curls were first described by Jacobsthal in 1934 in an article on an unprovenanced collection of Celtic bronze objects and he suggested a Southern and Eastern origin for the motif; ten years later he discussed it further as a distinct motif in the repertoire of Celtic art (1934, 77f.; 1944, 71). It may be described as a triangle with an elongated apex which curls over with a knobbed end (rather in the manner of a Phrygian helmet). As the motif is present in the decoration of both the Amfreville and the Tronoën helmets it is of more than passing interest. The most important of all comparative pieces is surely the Gottolengo helmet where a pair of curls forms the summit

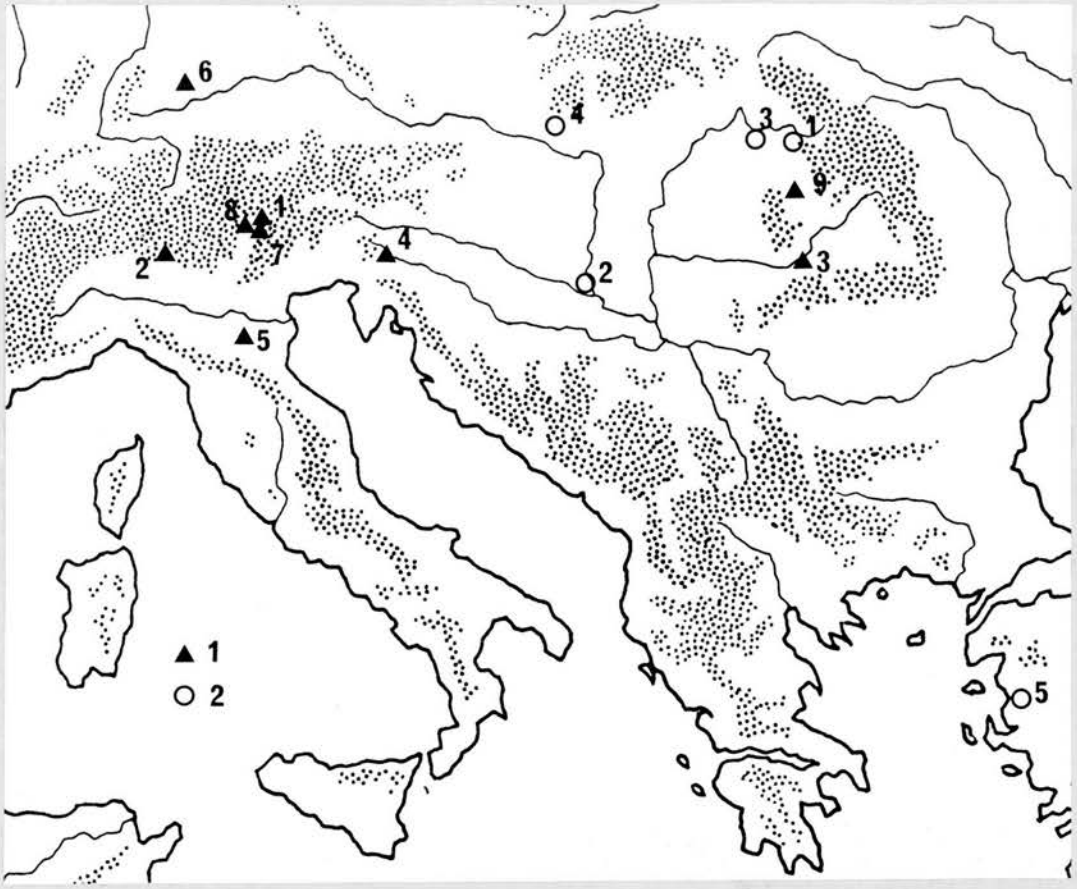
decoration of the side ornament; the whole layout of this helmet clearly forms a prototype for the concept of the Amfreville decoration.

Curls also occur, in a less flamboyant style than Amfreville, on the gold band from Eigenbilzen (Limbourg) which Marien dates to about 400 B.C. (Inv.Arch. B.6) and on the buffer terminals of the gold torcs from the Waldalgesheim burial as well as in a register on either side of the face which is the central feature of the composition (Jacobsthal, no. 55, for earlier refs.). Curl pattern was also used on a bronze torc from Les Commelles details of which are given in the Appendix. Another Italian helmet, on the cheek-pieces of which this style of decoration has been employed, from Bolsena (Rome) may confirm part of the origin of this motif first suggested by Jacobsthal (Coutil, 1914, 17, pl. vii). On this piece the curls form the breaking crests of a wave pattern flowing outwards in both directions from the central axis of the cheek-piece. This wave pattern is an important ornamental feature of a number of French helmets more directly related to the 'jockey cap' series than are the Amfreville and Tronoën pieces. Examples of this group include those from Martres de Veyre (Puy-de-Dôme) (Coutil, 1914, 8, fig. 6; Déchelette, 1914, 1162, fig. 489, 2; Jacobsthal 1944, 116n.) and from the Museums of Montpellier (Louis, 1953, 306f., figs. 1 and 2) and Marseille. There is little evidence of date for this group but the 3rd to 2nd centuries B.C. would appear to be a likely span - probably with some continuation into the 1st century B.C. 'Locken' motifs may also be skeuomorphic of hair and as such are especially appropriate to helmet

decoration; such designs on the neck-guard of a helmet show that tufts or curls of hair may have been showing from beneath the bronze (e.g. those from the museums of Montpellier and Marseille). A line of curls above the forehead of a Corinthian helmet from Canosa (Apulia) and now in the Badische Landesmuseum, Karlsruhe also suggest that this may be an idea which the Celts adopted from Italian sources (Coutil, 1914, 12).

The tendril ornament stemming from triangular joints found almost free-hand on the central gold band of the Amfreville helmet and with greater regularity on the lower iron hoop - infilled in this case with enamel - is also an important feature of the decoration. Such Dreieckswirbel are also present for example on the Waldalgesheim torcs and on a series of fibulae of Early La Tène date published by Krämer (1960, 20ff., Tafs., 1 and 5). These fibulae have a mainly South Alpine distribution although one was found on the Danube at Manching. The tips of the clasp of a number of these fibulae are decorated with heads covered with what seem to be Negau style helmets (Pl. 6, below, right). Another Alpine example of this running triscele ornament occurs on the scabbard locket from Sanzeno (Jacobsthal, 1944, no. 104) which was found with one helmet of Castelrotto type and two of the Negau group. The origin of this style of ornament appears to lie in Italy and to be the product of the elaborate linking of S-scrolls of such pieces as the sword scabbard from Moscano/Fabbriano. Here the loop linking the scrolls makes a slightly triangular joint on both S's. The pottery associated with this find is of late 4th century date. (Dr. Frey has kindly provided

the information on which these observations are based.) The late 4th century date for the Waldalgesheim grave where two of the motifs of decoration are also present and a similar date for the Amfreville helmet and presumably also for the Tronoën fragments may thus be suggested.



Map 2. 1, Castelrotto Helmets; 2, Batina Helmets.

▲ CASTELROTTO HELMETS

1. Castelrotto (Kastelruth) (Alto-Adige-Trentino).
2. Giubiasco (Ticino) Graves 263 and 425.
3. Haţeg (Hátszeg) (Rumania).
4. Mihovo, St. Vereja (Slovenia) Parz.num. 1655 - Grave 58.
5. Montefortino (Emilia).
6. Nebringen, Böblingen (Baden-Württemberg).
7. San Maurizio, Bolzano (Alto-Adige-Trentino).
8. Sanzeno, (Alto-Adige-Trentino).
9. Silivaş (Oláhsilvás) (Rumania).

○ BATINA HELMETS

1. Apahida, Cluj (Rumania).
2. Batina (Kiskőszeg) (Croatia).
3. Ciumeşti near Satumare (Rumania).
4. Holiare (Slovakia).
5. Pergamon (Western Turkey).

(iiib) Castelrotto

The essential features of the group of helmets here labelled Castelrotto may be seen on Pl. 10; the cap has a slightly thickened base, which at the back serves to divide it from the everted neck-guard. A single side roundel on each side of the cap, above the temple, is the most constant trait, and triangular cheek-pieces, decorated with three circles, are associated with most of the examples.

The recent discovery of an iron helmet in grave 11 at Nebringen some 30 kms. South of Stuttgart (Baden - Württemberg) has focused attention on this small group. Apart from Nebringen, which is North of the Alps, several helmets of this type have been found in what is now the Alto-Adige-Trentino province of Italy - near Castelrotto (Kastelruth), at Sanzeno and near San Maurizio, Bolzano (Moritzing, Bozen). An Alpine cemetery in which two helmets of this type have been found is Giubiasco in the Ticino canton of Switzerland (Graves 263 and 425). From the Slovenian cemetery of Mihovo come other two such examples and further East in Transylvania two helmets, which may most satisfactorily be discussed in this context, are those from Haţeg (Hátszeg) and Silivaş (Oláhszilvás) both in Rumania. Because of the material associated with these helmets, whose distribution is shown on Map 2, they form one of the more important types discussed in this chapter.

Grave 11 at Nebringen contained an inhumation of a man between 40 and 60 years old, and deposited with him were a gold finger-ring, an iron sword, a scabbard (of which some slight remains were found), three iron rings, an iron spear and the iron helmet with what may possibly be part of a crest

(Krämer, 1964, 14f., Tafs. 11-12, 18). Krämer notes that this is the only helmet from a grave North of the Alps in La Tène B and C contexts. On either side of the helmet-cap, just above the temple, there are decorative roundels which serve to attach on the cheek-pieces and it is clear that this single knob has an essentially practical function. The cheek-piece itself is very fragmentary, but Krämer has suggested that it is in fact wrongly reconstructed in his illustration and that it should belong to the triangular type decorated with three circles. The crown of the helmet-cap is slightly flattened, and a spike crest was fixed through the central hole and kept in position by a peg of yew wood.

The helmet found near Castelrotto with which Krämer links the Nebringen piece is also iron with a ribbed neck-guard and a side-knob by which the cheek-piece hinge is attached to the cap. The cheek-piece, which is triangular in shape, is decorated with three ringed bosses and instead of a spike-crest there is a flattish top-knob (Lipperheide, 1896, 230, no. 457) (Pl. 10 above).

The other two finds from the Alto-Adige come from hoards of metal work, and although it is not certain whether they are votive deposits or founders' hoards, they both seem to have been single deposits, unlike the votive caverns in Istria, though the objects found in them are not necessarily contemporary. The San Maurizio hoard includes an iron helmet which has been partially flattened, two belt Middle La Tène swords, a straight-sided <u>cista</u>, deliberately cut up into fragments and pieces of a biconical vase (helmet, Lipperheide,

1896, 228, no. 458; *cista*, Lucke and Frey, 1962, 68, Abb. 12; vase, *ibid*, 69, Abb. 13). The flattened state of the helmet and the cut up fragments of the *cista* rather suggest that this is a single deliberate deposit.

The *cista* from San Maurizio is decorated in *situla* art style, but it is remarkable in that a fish-bladder motif has been used in the top-most zone of decoration. This was picked out both by Jacobsthal (1944, pl. 271, no. 317) and Lucke and Frey (1962, 47) as a Celtic element intrusive in the *situla* style of the rest of the piece; and Jacobsthal adds that in 1938 he had considered this piece, along with the Hallstatt sword-scabbard and the dagger from Este, as representative of a blend of Atestine and Celtic ideas. The most recent guide to the date of *situla* pieces suggests a mid-4th century B.C. date for the manufacture of the San Maurizio *cista* (Situla Catalogue, 1962, 29), but this is of course no more than a *terminus post quem* for the deposition of the *cista* in fragments.

The helmet has been partially flattened by a number of severe blows on its sides, but the top-knob decorated with a rosette and the appliqué roundel at the temple survive intact. The brim of the cap is edged by a broader rib with a narrow one on each side and the neck-guard is bordered in the same way; in the centre of the neck-guard there is a small knob with scored decoration consisting of a concave sided triangle. The helmet, roundels and top-knob are of bronze (Pl. 11).

The date of a deposit such as that from San Maurizio cannot be given with any certainty; the objects in the *situla* style of the mid-4th century, in the decoration

of which a Celtic hand may have taken some part (the fish-bladder/comma motif) suggest that a date of much more than century after this for the deposition is unlikely. This is clearly a rather subjective way of constructing any chronology but comparable helmets, and the Middle La Tène swords, though bent and rather nondescript, might give some degree of confirmation.

The second deposit, that from Sanzeno, has never been published in detail, although it is mentioned by Reinecke (1942, 157) as a votive deposit the objects from which were scattered between the museums of Innsbruck, Trento, Bolzano and Munich. Reinecke discussed the finds, because of the presence of a complete Negau helmet and the fragment of another, and von Merhart describes two helmets from the site 'ein oder der andere' (1926, 75). Jacobsthal too notes the deposit because of the presence of a decorated Celtic sword scabbard (1944, no. 104) but as this has been put to secondary use perhaps,as the front to a lock (for there is an L-shaped piece cut from the middle), it cannot be used to assist in the dating of the deposit. The iron tools and fragments of weapons are mentioned by von Merhart, (1926, 75).

The helmet from Sanzeno consists of a flattish iron cap with a rather rusty top-knob, neck-guard and cheek-piece hinged behind a roundel on the cap of the helmet (Pls. 10, below; 12, above). The cheek-piece, which is now fragmentary, has been decorated with three roundels. Like the San Maurizio piece the dating of such an assemblage is a matter of some controversy, but there is no longer any reason to suppose that the presence of a Negau helmet must indicate a

late, probably 1st century B.C. date, and there is better evidence to suggest a 3rd century date for such a hoard. The sword-scabbard is decorated in two bands, the lower of which may be compared to the rope pattern of a number of Negau helmets and the upper is a form of running triscele which is clearly linked to motifs on the helmets from Amfreville and Silivaş. Running triquetra of this type may be derived from linked S-scrolls of Celtic sword decoration in Italy, for example at Fillotrano, Grave xii and Moscano/Fabriano.

The helmet from Silivaş is one of the most interesting of this small group, for it is the most easterly example of the Waldalgesheim art style; the slightly conical iron helmet cap is surmounted by an elaborately decorated top-knob. Roundels at the temple may have served to attach the hinge of the cheek-pieces; the marks of the three rivets by which the hinge mechanism was attached are still visible.

The top-knob and side roundels are of bronze and both are decorated with symmetrical curvilinear design. The neck-guard, also of bronze, has been attached to the cap by eleven rivets, traces of which are still visible on the helmet rim. There is an elaborate decoration in a free Waldalgesheim style, based essentially on the liberation of the S-scroll into a complicated series of gammas and triquetral-scrolls some of which are related to the lyre pattern of back-to-back S-motifs. The helmet from Silivaş was found with a burial deposit which also included a decorated scabbard chape, the blade of a sword, two iron

spear heads (one with a ribbed socket and the other with a decorated blade), the curved blade of an iron sica, an iron knife dagger and what is described as an iron La Tène II fibula belonging to the La Tène IIIa period. The curved sica blade of local 'Thraco-Illyrian' origin stresses the cosmopolitan attitude of the Celt to weapons, for the burial must date to soon after 300 B.C. and thus to the beginning of Celtic settlement in Romania. It would probably be wrong to suggest that in Transylvania the Batina and Castelrotto types were completely exclusive as far as date is concerned - the Silivaş helmet is quite unique in its decoration, but it may be stressed that the motifs on the Apahida helmet and the Ciumeşti mail are balanced and regular, and though both triscele and lyre motifs with back-to-back S-scrolls do occur, there is never any attempt to produce the Waldalgesheim style fantasy and irrationality as on the Silivaş neck-guard. Apart from the artistic similarities of this piece to the helmet from Amfreville, there is a common structural feature, as the neck-guards of both have been riveted onto the cap-piece - and this is only known otherwise on the helmets from Holiare and Vinji vrh.

Two further helmets may be mentioned - one from Haţeg in Transylvania belongs to this group, and the other is from the Gaulish cemetery at Montefortino with a secondary burial between Graves ix and x. Although the cap and cheek-pieces of these two helmets are exactly similar to the other complete examples of the Castelrotto type - an additional rib round the base of the helmet cap is rather reminiscent of the Negau class. The slightly conical top has a flattened summit

which is very similar to the Nebringen example discussed first, and at Montefortino this has been surmounted by a triple-ribbed flattish button.

The record of the Montefortino burial appears to be incomplete (Brizio, 1899, 673, Tav. vi, 3) but from the third of three burials discovered between Graves ix and x, a bronze helmet almost identical to the Haţeg piece was found, associated with two leaf-shaped spear heads. If Jacobsthal's assessment of these cemeteries is correct, such a context should suggest a late 3rd or early 2nd century B.C. date for these examples.

Three other helmets may probably be included in the Castelrotto group - one from the cemetery of Mihovo in Slovenia and two from Giubiasco on the Ticino. The Mihovo cemetery contained over 400 graves (the numbering for the graves in each Parzelle begins at one and thus the Parzelle must be quoted in each case); the finds are as yet unpublished. A helmet of this type was found in grave 58 (Parzellennummer 1655) (Vinski-Gasparini, 1959, 291 n.); it has a conical cap-piece, a ribbed neck-guard and a side roundel above each temple. A similar helmet was discovered in Grave 425 at Giubiasco along with a Middle La Tène sword in an iron scabbard and the iron and bronze rings of its attachment to a belt, spear heads, a knife handle, a pin and a Middle La Tène fibula. The helmet is iron with a slightly pointed cap-piece and a neck-guard which is divided from the helmet by a rib at the base of the cap. A mark in the centre of the neck-guard shows that there has been a small decorative feature, probably of bronze and at each temple a roundel of bronze survives, with a broad-headed iron rivet in the centre

of each and the bronze is decorated in repoussé with a series of ring-and-dot ornament. The iron of the helmet has panned badly and the surface has in places flaked away. The side roundel is similar in size and in formation to the helmet from Mihovo (parz. 1655, Grave 58) (Pl. 12, below left). It may also be compared with those on the Nebringen and Castelrotto examples. The side discs of the Sanzeno and San Maurizio helmets are rather smaller and are also functional as they serve to attach the cheek-pieces. The side pieces from Silivaş on the other hand are decorated with a tripartite motif and like the Giubiasco helmet just discussed these roundels are bronze set onto an iron cap-piece. The Middle La Tène fibula from Grave 425 at Giubiasco might suggest a 2nd century date for the associated helmet and Moreau suggests a similar date for a second helmet of this class from the same cemetery and also for the contents of Grave 263 in which it was discovered (1958, 247, Taf. 18) (Pl. 12, below right). This helmet has a considerably more conical cap-piece than the others of this group but the tiered globular top-knob may be likened to that from Sanzeno and the neck-guard pursed outwards beneath a rib to that from Mihovo described above. The cheek-pieces with a triple circle decoration ally the piece to the Castelrotto and Sanzeno pieces and as the contours of the guards are cut away to conform to the outline of the upper-circles, the link with the Sanzeno example is very close. The date of the Giubiasco grave is not of necessity, however, as early as Moreau suggests for the associated finds included a Late La Tène sword and scabbard, a spear head and butt,

a shield boss (a variant of the Mandach type) and a terra sigillata tazza and bowl. The pottery suggests that the grave may more probably date to the 1st century B.C. although the helmet and probably the shield may of course be of earlier inspiration.

(iiic) Batina

One of the most important features of this study of European Celtic helmets has been the isolation of a distinct group of helmets in East Europe which may be dated with some confidence to the 3rd and 2nd centuries B.C. The helmets in this, the Batina, group are distinguished by a triangular decorative or strengthening plaque on the cap and this seems to take the place of the single side roundel. The side decoration has a layout of three broad-headed rivets one in each corner and this may well have mirrored the decoration of the cheek-pieces. Most have a distinct rib between the cap and the neck-guard. Helmets of this class are shown on Pls. 13-15 and the distribution is included on Map 2. Helmets of this type have been discovered at Holiare (Slovakia), Batina (Croatia), Apahida and Ciumeşti (Transylvania) and one is also depicted on the Pergamon frieze.

The helmet from Holiare has been published in some detail by Benadik et al. (1957, 142f., Taf. xxxv, Abb. 27), but there are features to which reference has not yet been made or from which the wrong inference has been drawn. It may also be noted that, although the helmet grave group is numbered 431 in the original publication, it is catalogued under grave 472 in the store of the Nitra Museum. The other weapons of this cremation burial are now almost unrecognisable fragments of rusty iron, and little information can be drawn from them; the warrior has been accompanied by a shield, of which two fragments of the binding and a number of pieces of the boss survive, fragments of an iron sword and scabbard and possibly of a spear and butt. Several pieces of the iron helmet remain, including almost the complete neck-guard, and

the shape of the cap is indicated by two sizeable fragments. The most important part, which is in the shape of an isosceles triangle with two bosses at its base and a third at the apex, is not a cheek-piece (pace Benadik) but a strengthening attachment, which would be fixed to the side of the cap, and a portion of the iron cap of the helmet remains rusted to the back of it. Two bosses survive and the imprint and rivet hole of the third is clearly visible. Some degree of confirmation of the position of this piece may be found on one of the rim fragments of the cap on which there is a boss completely rusted on to the cap at exactly the same position in relation to the rim as the side attachment. It is not known whether there were cheek-pieces on this helmet; no portion of any hinge mechanism remains and although two other fragmentary bosses survive, they may be part of the attachment from the other side of the helmet cap.

Batina is on the West bank of the Danube upstream from its confluence with the River Drava in what is now Yugoslavia; the Hungarian name which is sometimes employed is Kisköszeg but the terminology of the most recent publication of this group is used here (Vinski-Gasparini, 1959). Although the exact circumstances of the discovery of this group of weapons are not known, Vinski-Gasparini suggests that they have accompanied the cremation burial of a warrior, but, because of the good state of the preservation of the iron, a complete inventory of the finds may be given - helmet, sword and decorated scabbard, suspension chain, spear, shield boss and hand grip and a two piece shield boss. The helmet, which belongs to the same group as that from

Holiare, consists of a cap and ribbed neck-guard in one piece, a knob decoration attached to the crown by a plate and three triangular pieces one of which remains attached to the side of the helmet by three large rivets (Pl. 13, below). Shaped like an isosceles triangle this piece is fixed with its short base resting on the rim of the helmet. A second side piece matched this on the other side, and the third may as Vinski-Gasparini suggests (ibid, 281) have been fixed to the front of the helmet, but it is more probable that this belongs to a cheek-piece which has matched the layout of the flanking motifs already discussed; although the fragmentary state of these pieces makes it impossible to be certain, this layout could be exactly paralleled on the Pergamon frieze (Pl. 13, above), but the other is quite unknown. The importance of the Batina finds is due not only to the completeness of the helmet but also to its association with a decorated sword scabbard and a distinctive strip shield-boss. The scabbard, decorated in Jacobsthal's Hungarian sword style (1944, 96, no. 115) belongs to a group of such swords found in Slovenia and in Croatia mainly to the North of the Sava. Vinski-Gasparini's suggested date for this group of ± 125 to ± 50 B.C. (1959, 297) is certainly too late, and de Navarro links the decorated swords to the Middle La Tène shields found not only at Batina but also shown on the balustrade friezes at Pergamon; the latter date to about 181 B.C. and record among other victories that over the Celtic tribes towards the end of the 3rd century (de Navarro, 1959, 115). The dating of this find is further discussed when the shield bosses from Batina are examined,

and although the 2nd century seems the most likely for its deposit, there seems to be no reason to include the 1st in the possible span.

Four fragments of a bronze helmet from Apahida, near Cluj, are illustrated here for the first time (Pl. 14); found in 1900 the circumstances of the discovery are not recorded, but the fragments may be part of a burial deposit in the extensive Apahida cemetery. Two of the mitre-shaped side-pieces on the cap survive with two rivets at the base and a third at the apex as in the two examples already quoted. The interest of these fragments is increased, however, because of the central decorative knob which survives on one of the side pieces. This has a central triscele with curling knobbed terminals, closely comparable to the motif on the decorative knob on the Ciumeşti mail. Vinski-Gasparini who notes this helmet without further comment suggests a 2nd century B.C. date (1959, 290).

An exciting new discovery has been made at Ciumeşti near Satumare, Raion Carei where a disturbed warrior burial included a helmet of this type. It seems likely that the discovery of the helmet during ploughing and the subsequent finds during a rescue excavation indicate the position of an outlying grave of the La Tène cemetery some 500 yds. away. The helmet has a triangular side piece with three rivets and similar cheek-pieces which link it to the group under discussion, and also a ribbed neck-guard (Pl. 15). The most extraordinary feature of this helmet is its crest which is an elaborate bronze bird with hinged wings. The bird has been described as a falcon (Filip, 1966, 236) and this is

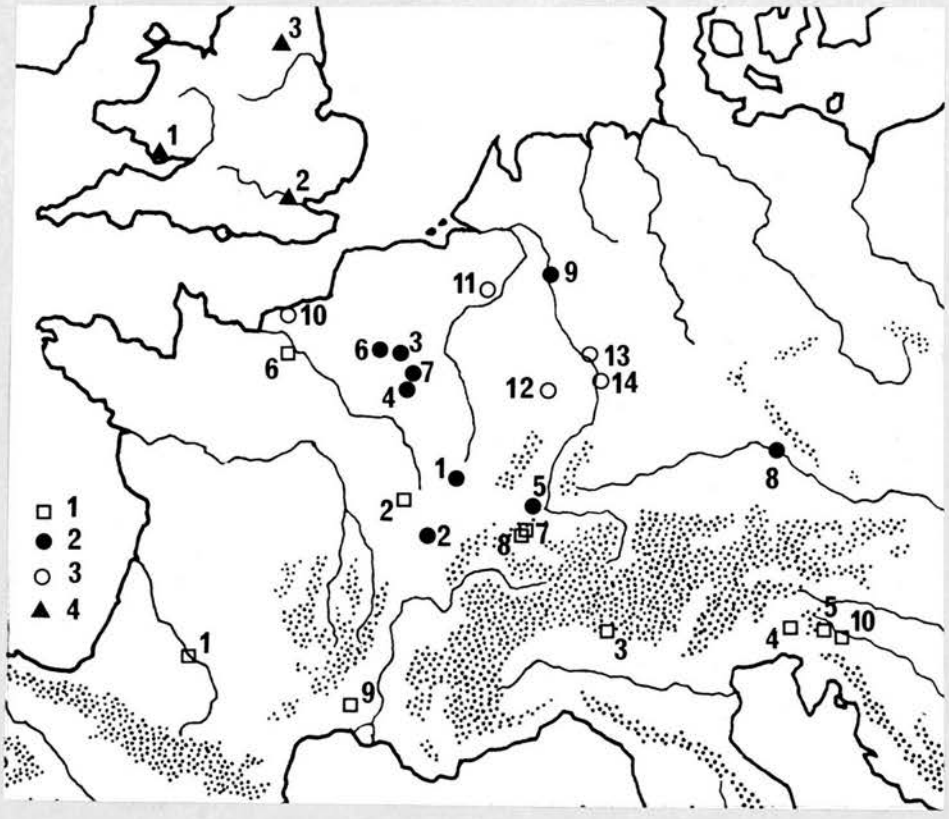
almost certainly either an imported Hellenistic piece or a copy of one. A pair of greaves, covering the shin and the knee, have elaborate veining and are also of Hellenistic origin (Pl. 63, above); a socketed spear and a folded mass of mail decorated with a bronze button (Pl. 62) complete the inventory of this grave group.

The helmet cap and its attachments are iron, the bird-crest and the perch on which the bird stands, attached through the top-knob of the helmet, are of bronze. The wings consist of sheets of bronze with a rippled effect to represent the feathers. Three loops on each wing fit through three openings on the body, and a long wire through the loops completes the mechanism. The body (which is made in two parts) and tail feathers are also of sheet bronze. The legs are given a finer flecking to suggest the small leg feathers; this technique is also employed on the head round the eyes. It should be noted that the paste in one eye is modern, and a rather more hooded effect has been achieved in the other. The beak is also modern. The helmet completed in this way has rather a startling allure, and although it seems that the helmet and crest were not originally found attached to one another, the present reconstruction does seem to be a valid one. The Celtic chief, advancing into battle with his mail suit, with plundered greaves and eagle-crested helmet, must have been a most impressive sight. The closest parallel for a bird-crest of this type occurs on the warrior plaque of the Gunderstrup Cauldron where the leading horseman on the upper tier wears a bowl-helmet with bird-crest; it is not really possible to suggest whether the wings are outstretched or not, but the fanned out tail and stance of the bird are very similar. The story of Marcus Valerius as recorded by

Livy may, like that of Titus Manlius, be mere legend but it illustrates the awe that such a flapping crested helmet must have aroused. 'While they were there quietly passing the time in guard duty, a Gaul came out to them, remarkable for his great stature and his armour, and, smiting his spear against his shield and thereby obtaining silence, challenged the Romans, through an interpreter to send a man to fight with him.' Valerius asks to be allowed to accept the challenge, arms and advances. 'But the human interest of the combat was eclipsed by the intervention of the gods; for the Roman was in the very act of engaging, when suddenly a raven alighted on his helmet facing his adversary. This the Roman first received with joy, as a heaven sent augury, and then prayed that whosoever, be it god or goddess, had sent the auspicious bird might attend him with favour and protection. Marvellous to relate, the bird not only held to the place it had once chosen, but as often as the combattants closed, it rose on its wings and attacked the enemy's face and eyes with beak and talons, till he was terror-struck with the sight of such a portent, and bewildered at once in his vision and his mind, was dispatched by Valerius, - whereupon the raven flew off towards the east and was lost to sight.' (vii, 26). This has been quoted in full from the Loeb translation for it shows the mixture of superstition and magic with the desire to instil fear into the heart of an adversary on sight. The Cuimesti warrior may even have been trying to ensure against a second Valerius soon nicknamed Corvinus.

Interesting corroboration for the type of helmet described as the Batina group is found on one of the panels

of the balustrade of the stoa of the Temple of Athena at Pergamon in Western Turkey (Bohn, 1885, pl. xlvi, 3) (Pl. 13, above). The frieze is intended to commemorate the victories of Attalus I over the Galatian tribes in the late 3rd century B.C. in the consolidation of his kingdom;and it is interesting to find that a helmet of this distinctive group is portrayed. The triangular, three riveted side piece attached to the cap of the helmet is complete and the beginning of the matching cheek-piece is also shown. The helmet has a ribbed neck-guard and a top-knob fixed to the crown as well as what may be some form of crest, but this has been partially destroyed. The date of the building of the stoa balustrade is not later than 181 B.C. and from the evidence of this representation the span of the Batina type may well be from the late 3rd to the second century B.C. There seems to be no reason to follow Vinski-Gasparini who suggests a date between about 125 and 50 B.C. for the Batina finds themselves. The other helmets shown on the Pergamon friezes are not distinctive La Tène types and appear to be of Greek or Macedonian origin (Jaeckel, 1965, 99ff., figs. 13-26).



Map 3. 1, Agen Helmets; 2, Coolus Helmets; 3, Helmets allied to the Coolus group; 4, British Helmets.

□ AGEN HELMETS

1. Agen, Plateau de l'Ermitage (Lot-et-Garonne).
2. Alésia, Alise Sainte Reine (Côte d'Or).
3. Giubiasco (Ticino) Grave 32.
4. Idrija pri Bači (Slovenia) Grave 5.
5. Mihovo, St. Vereja (Slovenia) Parz.num. 1656 - Grave 27.
6. Notre Dame du Vaudreuil, Conninière (Eure).
7. Port, from the River Aare, Station Portländte (Bern).
8. Port, Zihlkanal (Bern).
9. Vié Cioutat, Méjannes-les-Alès (Gard).
10. Vinji vrh, Šmarjete (Slovenia).

● COOLUS HELMETS

1. River Flambart, Breuvannes (Haute Marne).
2. River Doubs, near Ciel (Saone-et-Loire).
3. Condé sur Suippes (Aisne).

4. River Marne near Coolus (Marne).
5. Lacollonge (Territoire de Belfort).
6. River Aisne at Laon (Aisne).
7. Vadenay, Suippes (Marne).
8. River Danube at Straubing (Bavaria).
9. Düsseldorf (Westphalia).

○ ALLIED HELMETS.

10. Cité de Limes, Dieppe (Seine Maritime).
11. Tongern (Limburg).
12. Böckweiller (Saar).
13. River Rhine at Mainz (Rhineland Palatinate).
14. River Rhine (an old bed) at Mannheim (Baden-Württemberg).

▲ BRITISH HELMETS.

1. Ogmore Down, Cowbridge (Glamorganshire).
2. River Thames at Waterloo Bridge (Middlesex).
3. Findspot unknown but probably in the North of England.

(iva) Agen

A group of iron helmets seems to date to the period of the conquest by Rome of the various Celtic provinces in which they have been found; those from France, for example, belong approximately to the mid-1st century B.C., and the examples from the Alpine or North Adriatic area appear to be contemporary. The distribution is shown by Map 3. The group is labelled Agen after the best known single example, but the most complete helmet which may be described in some detail, as it is the best representative of the class, is from Grave 32 at Giubiasco (Ticino) (Ulrich, 1914, 548ff., pl.lxxx, 3 and 3a) (Pl. 16, above). The helmet has a bowl shaped cap-piece with a distinct ridge at the base and, below this, a broad rim flares out to afford additional protection, particularly to the back of the neck. Two rivets at each temple serve to attach the hinge by which a scalloped cheek-piece is attached. Inside the helmet were discovered the remains of the textile lining or padding which must have existed in almost all the war helmets under discussion, and complete examples of such leather padding have been found among the leather work from Vindonissa. The Giubiasco helmet was included by Coutil in his various lists (1912, 15, fig. 12; 1914, 30, pl. ix, 2); the inclusion of a beak flagon among the contents of the grave occasioned the study of the burial by Jacobsthal and Langsdorff, who gave a complete list of the grave goods (1929, 19f.), and because a shield boss of Mandach type was also among the finds, the grave has more recently been discussed by Drack (1954-5, 221). Among the grave goods of this important warrior grave the

following may be noted here - an iron helmet, La Tène sword and scabbard fragments, shield boss, spear and an axe with a long cutting edge; a bronze beak-flagon and a large flat vessel with a handle and a ladle, a silver armlet and a belt ring. The beak-flagon, the large flat vessel with a bird-headed handle and the ladle were taken to be 2nd to 1st century B.C. in date by Jacobsthal and Langsdorff (1929, 20); Reinecke was rather more precise and suggested a Late Republican/Early Caesarian date for the assemblage, but as he took the helmet to belong to a clearly Roman type, this may be too dogmatic an assertion (1942, 155).

An identical helmet was discovered in 1858 at Notre Dame du Vaudreuil, Conninière (Eure) in the lower basin of the River Seine in a Gaulish cemetery excavated by Goujen and the Abbé Cochet. The helmet had been used as a cinerary urn and also contained two bent La Tène III swords, some pottery and a coin of Tiberius (4 - 37 A.D.); the weapons would thus seem to be of late 1st century B.C. or early 1st century A.D. date (Coutil, 1914, 29f.; 1918, 86, 97f.).

Two helmets from Switzerland belong to this group and both were discovered near Port (Bern) possibly during the construction of the Zihlkanal; that found in the River Thiele is almost identical to the Giubiasco helmet (the cheek-pieces have in fact been reconstructed from this model) (Pl. 16, below); the second, found in 1890 in the bed of the Aare (Pl. 19, above) is important because of its similarity to a helmet from the oppidum of Vié Cioutat near Méjannes-les-Alès (Gard) which is published in detail for the first time in this study (Pl. 17, below). The helmet from Port has a bowl cap

with a double ribbed neck-guard and a slight peak; scalloped cheek-pieces are attached to hinges which are riveted to the cap by a double perforation on each side, and there is a rib above the forehead which arches slightly from a central knob. Only the bowl cap-piece of the Vié Cioutat helmet survives, but the rib on the forehead, arching from a central rivet, remains intact, as well as a pair of rivets above the left temple which suggest that this helmet has possessed cheek-pieces like that from Port

At Alésia, the final stronghold of Vercingetorix against Caesar in 52 B.C., a large number of weapons were discovered during excavations undertaken under the direct patronage of the Emperor Napoleon III during the 1860's. It has been suggested that the arms found there represent a congeries armorum, a sort of trophy set up after Caesar's victory. The weapons were deposited in Napoleon III's new museum at St. Germain-en-Laye, and many of the iron pieces are now in a very poor condition. Verchère de Reffye, l'officier d'ordonnance de l'Empereur, who directed the excavations, published a note on the arms in 1864 and he lists the fragments of helmets. 'Beaucoup de débris de casques en fer ont été retrouvés; l'un des casques a pu être complètement reconstitué....' (1864, 347). The complete helmet is shown by Déchelette (1914, 116, fig. 491). It has a bowl cap-piece with a rib at its base and a flaring neck-guard; instead of the twin rivets at each side there is a broad rivet, the head of which is quartered to hold enamel. Running round the forehead between the enamel rivets there is a second rib comparable to those on the actual helmet-caps

from Port and Vié Cioutat. Rivets, quartered and alternately hatched, are found on four of the other fragments of this type of helmet from Alésia now in the Museum of St. Germain-en-Laye (Maitre 1879, 221, fig. 4). The museum also has six cheek-pieces from the same series of excavations, and Verchère de Reffye noted that 'Les mentonnières de ces casques, grâce à leur form plate, se sont beaucoup mieux conservées' (Pl. 19, below). One object shown on fig. 18 as a cheek-piece is perhaps a rather doubtful one (1864, 347, fig. 18 and pl. xxii). All but one of the cheek-pieces belong to the type illustrated best by Giubiasco grave 32 and Notre Dame de Vaudreuil. The unique piece, scalloped and with a ring by which the pair would be attached by a thong under the chin, is decorated with high conical cones of spirals which join in pairs to form S-scrolls. The decoration thus created seems to represent carefully prepared curls of a beard, and it may be compared to the series of Danubian cheek-pieces like that from Assenovgrad and also to the hair-styling of the bronze mask from the Museum of Tarbes (Hautes-Pyrénées) or on the pot from Bavay (Nord) on which are shown the faces of Gaulish divinities (Varagnac and Fabre, 1956 pls. 2-5 and 63).

The final French helmet in this group is that from the Plateau de l'Ermitage, Agen (Lot-et-Garonne) and this is perhaps the most satisfactory name for this class of helmet (Pl. 17, above). It was found at the bottom of a well in the oppidum on the Plateau de l'Ermitage. The well had been used to hold two burials, at least, and the skull was in position inside the helmet; three amphorae and an iron short sword with bone handle mounts were also discovered at

about the same level, and, lower down, were found a second skull, a lamp, pottery, fibulae and La Tène II/III swords (Fabre, 1952, 143 and the swords are illustrated on pl. ix, 2). The cap, rib and flared neck-guard are all closely comparable to the helmets already discussed; the plume holder, riveted to the crown by three rivets, is the only feature not so far paralleled in the group.

The lower part of the helmet is partially damaged and rusted, but on one side a pair of rivets with large rounded heads remain and these have held the hinge for the cheek-piece in position; the cheek-pieces have not survived. A small rivet (11mm. in diameter) survives on the front visor, and it has been quartered and cross-hatched with an engraving instrument possibly as a keying for enamel. Déchelette (1914, 1166) notes that the rim was originally decorated with enamelled knobs of this type but these can no longer be traced.

Espérandieu illustrates a number of stones of Roman trophy sculpture from Narbonne (Aude) on which helmets of Agen type are depicted - but by no means all of the weapons of these stones need be of Celtic inspiration. One helmet, shown between two boss and spina shields, appears to be of this type with a broad deep neck-guard, possibly scalloped cheek-pieces and a flowing plume, fixed at the crown presumably in the sort of holder present on the Agen example (Pl. 22, below). A decorative roundel above the temple is a feature of many representations of helmets, but it is almost impossible to find an actual example at this period. A bowl-shaped helmet with a straight neck-guard, ~~is~~ shown on a stone found during excavations in the Rue Geline, Avignon

(Vaucluse) (Espérandieu, Recueil i, no. 236), along with a round bossed shield and a carnyx, might be compared with the helmet from Vié Cioutat, Nîmes; but it is also rather similar to the close fitting helmet from Entremont which may perhaps represent a leather type. Amy et al. describe at least four of the helmets of the barbarians on the upper entablature as belonging to the Agen type, one decorated with a spoked wheel and another with a pair of horns (1962, 127f.). Neither features can however be confirmed by actual finds, but the date of the arch about 26-27 A.D. gives a useful extension for the span of this helmet type (ibid, 129).

The helmets from the cantons of Bern and Ticino are the link between the four French examples and three comparable helmets from Slovenia - from Idrija pri Bači in the Isonzo valley, from Vinji vrh near Šmarjeta and grave 27 in the cemetery of Mihovo. As it seems possible, however, that the broadening of the neck-guard and even the introduction of scalloped cheek-pieces may be due to the influence of Roman techniques and fashion, the similarity of the Slovenian pieces may be due to a common source of influence with the others of the Agen class as much as to any direct influence from France.

Grave 5, Idrija pri Bači belongs to Reinecke's second chronological group of burials from this site dating to the beginning of the 1st century A.D. (1942, 141 n.). Reinecke also took the helmet to be Roman. The grave contained a remarkable series of objects apart from the helmet, including a stamnos as an ossuary, bronze vessels, a sieve, an iron spear head and axes as well as a series of tools and

a torc. The complete list is given by Szombathy (1887, 328, fig. 138). The helmet has a round cap with a low rib at the base of it, the beginning of a neck-guard and a ribbed, slightly flared peak. The scalloped cheek-pieces are rather less angular than the others of this group, and the hinges are held in place by one rivet instead of the pair which is much more common. A slit between the neck-guard and the cheek-piece is comparable not only to the helmet from grave 27 at Mihovo but also to that from Port (from the bed of the Aare). The grave goods of this burial at Idrija seem to suggest that it was that of a native chieftain of some importance.

The helmet from grave 27 of the cemetery of Mihovo was found with a Late La Tène sword and may thus be thought to date to circa 1st century B.C. or 1st century A.D. (Pl. 19, centre). The cap-piece has the characteristic bowl shape of the Agen group, with a rib at the base between the deep neck-guard at the back and a slight additional protection covers the forehead. Like the Idrija example there is a slit between these two distinct parts with a roundel between and, had there been cheek-pieces, they would have been attached to this in the usual way (Vinski-Gasparini, 1959, 291, n.72). The Mihovo helmet is very similar to that from Idrija, and both share several features which seem to ally them to the Agen group.

Only the neck-guard and the cheek-pieces survive of the helmet from Vinji vrh, but it seems permissible to link these pieces with the Agen group of helmets because of the broad neck-guard, the shape of the cheek-pieces and the use

of quartered and hatched enamel knobs (Pl. 18). The cheek-pieces are about 11cm. long and on each there are three knobs of red enamel with a heron or stork intertwining between them - the long legs and thin neck forming the cross axis on each piece with the body and wings between the enamel knobs, and the head and long beak completing the figure. Jacobsthal observed that the birds would confront each other, even though separated by the face of the warrior and, because of the similarity of the enamel work with Mont Beuvray and Stradonic, suggested that the piece belonged to the 1st century B.C. (1944, 28, 181, no. 152). The neck-guard is 29cm. long and 8cm. deep; it has been attached to the helmet cap by a flange in which a number of small iron rivets still remain. It too has been decorated with a series of enamel knobs, of which at least twelve may still be seen, and a central band of arcading perhaps forming a broken serpentine. The cheek-pieces and neck-guard are bronze, but the hinges of the former and attachment nails of the latter are iron; it is possible that the cap-piece of this helmet has thus been of iron and for this reason has not survived. Jacobsthal suggested that the cap might have been of leather, but there is no evidence to confirm this; he postulated too that the neck-guard might in fact be a protection for the throat, but as such pieces appear to be unknown at this time in Celtic armour, and broad neck-guards are a feature of those helmets with which these objects should be grouped, there seems no reason to follow this suggestion (Jacobsthal, 1944, 181, no. 152).

In the Alps and in Slovenia the discovery of helmets of Agen type in the same cemeteries as Negau helmets at

Giubiasco and Idrija, both types in contexts which suggest a mid 1st century B.C. date makes it possible that there is some connection between them. It seems more likely however that, despite the distinct rib at the base of the cap which is a feature of both types, they belong to differing traditions and the absence of a ridge or crest on the Agen cap-pieces is perhaps the most striking confirmation of this.

The relationship between Agen helmets and Roman models of the Haguenau-Weisenau group has recently been touched on by Harmand in a consideration of Roman armament at the end of the Republican period (1967, 85ff.). Harmand suggests that the close similarity between the scalloped cheek-pieces (garde-joues à contours sinueux), present for example on the helmets from Notre Dame du Vaudreuil and Giubiasco, Grave 32, indicate a Celtic influence on the evolution of Roman defensive weaponry in the 1st century B.C. for they seem to antedate the appearance of the Roman examples.

Pliny's remark that 'the Gauls used to ornament with coral their swords, shields and helmets' is often taken to refer to the coral decoration on such conical La Tène I helmets as La Gorge Meillet and Cuperly, but Pliny who was writing his Natural History in 77 A.D. might possibly have picked up a reference to the use of enamel on those helmets of Agen type - Alésia, Agen and Vinji vrh; it would not be the first confusion between coral and enamel or glass.

The absence of coral decorated helmets (apart from Tronoën) in the centuries between the conical La Tène I examples and Pliny's compilation may confirm that he was referring to the use of red enamel on the Agen type.

Amfreville also a considerably earlier piece is decorated with enamel not coral. This is clearly a most subjective interpretation (Pliny, Nat.Hist., xxxii, 11, 23).

(ivb) Coolus

A helmet found in the Doubs in the arrondissement of Chalon and now in the Museum at Chalon-sur-Saône occasioned a study by Armand-Calliat in 1965 of a little known group of bronze helmets, here labelled the Coolus type, after a helmet in the Morel Collection in the British Museum (Pl. 20, above). Not one of the helmets of this group has a valid association, and most of the extant examples have been found in rivers in East France and Rhineland Germany. The helmets of this group have a bowl-shaped cap without the top-knob decoration, a slight neck-guard, and hole above each temple. All but one are of beaten bronze, and the rim is slightly thicker than the rest of the cap; the neck-guard is merely an elaboration of this thickening into a small flange at the rear of the helmet.

The comparatively compact distribution, shown on Map 3, is one of the most interesting factors, for only the Lacollonge and Cité de Limes helmets can be given an association of any sort and they are both rather tentative ones. Lerat suggests that the former helmet was found 'under a thickness of alluvial gravel of about 2m. among the upright oak posts of a palisade' which may be on the site of a battle between Ariovistus and Caesar (1960, 261f.). Although such historical associations are inevitably unsatisfactory it is at least interesting to record. The latter was found in 1827 some little distance from a skeleton and five bronze strainers and more than a metre underneath the foundations of a Roman building (Coutil, 1902, 98f.).

The side perforations found on the majority of the

helmets of this group are almost certainly for the attachment of a chin-strap, and it may be stressed that there is no evidence on any of these examples for cheek-pieces. The helmets from Böckweiler (Pl. 21, below) and 'from the Rhine near Mainz' are included in the Coolus class, for although the Böckweiller piece is the only iron example it has a very similar bowl cap and, as it is fragmentary, it is not possible to ascertain the shape of the neck-guard. The Mainz helmet is also closely comparable, but it has a rather deeper neck-guard than the norm. Both are important, however, as they shed some light on the method by which the chin strap has been fixed. On the helmet from Böckweiller there is a simple ring which forms part of the rim, and in position and function this ring is very similar to the attachment on the bronze horned helmet from Waterloo Bridge. A small folded tab is riveted through the perforation just above the temple on the helmet from the Rhine near Mainz, and this secures a loop through which the leather chin-strap would be attached. A number of helmets in this group are decorated, including those from Coolus and those found in the Rhine at Mainz and Mannheim, and it seems likely that the mark round the forehead of that from Tongern represents an ornamental band that has since disappeared (Pl. 20, below). The decoration on the helmet from Coolus consists of three simple lines of pointillé round the forehead and a pointillé criss-cross on the neck-guard. The Mainz and Tongern helmets have a larger and more effective neck-guard, and the latter has a distinct ridge at the base of the cap. On the Tongern piece only a change in patina remains to show where there has been an ornamental

band. The decoration on the helmets from Mainz and Vadenay consists of a simple band of cross-ribbing, (and an additional beading on the latter piece), which is certainly comparable to the scheme of decoration on a number of 'jockey-cap' helmets. The Mannheim example has a similar band round the base of the cap and another covers the small neck-guard; an additional circlet of incised linear decoration completes the scheme and makes this the most elaborate helmet of the Coolus type. The helmet from Cité de Limes, Dieppe survives only partially and its inclusion in this section is rather tentative; three rows of small repoussé circles decorate the helmet - one row runs round the base of the cap and another, which follows the brim, edges the neck-guard. The third row runs between these and also between the two ridges of the neck-guard. The neck-guard of this helmet is very similar to that from Mannheim and the decoration also follows a comparable layout. All the motifs involved are very simple and basic, and it may be argued that there is in fact little evidence of the date or context of this group. The compact distribution and the convincing place the Coolus group occupies in a typology of Celtic helmets do allow, however, for its inclusion in this study.

The helmets of the Coolus group were first examined in any detail in a short article by Kessler in 1928 occasioned by the discovery of the example from the Rhine at Mainz. He linked this piece not only to the Mannheim helmet but also to those from Vadenay and Breuvannes (Pl. 21, above) and to an unprovenanced helmet in the Museum at Karlsruhe; by their shape and decoration Kessler suggested that this group was of late La Tène date. These bowl-shaped

helmets are also related to a number of 'jockey-cap' helmets which have recently been discussed by Bogaers and Hinz. The helmet from the Meuse at Buggenum (Limburg) seems to date to about 70 A.D. (Bogaers, 1959, 96, Afb. 1); the cap-piece of examples of this group is more pointed and is surmounted by a top-knob, and the neck-guards of the Olfen and Flüren pieces are very like those of the foregoing Coolus group (Hinz, 1960, Abb. 1 and 2, 1). The pointillé decoration on the neck-guard of the Buggenum helmet, similar in technique to the ornament on the Coolus piece, shows however that this is a Roman legionary helmet and it illustrates the closeness in shape of Celtic and Roman helmet types also noted in discussing the Agen group. The double perforation at the side of the Buggenum helmet may be compared to that from Düsseldorf and also to the helmet from Skocjan (St. Canzian) (Slovenia) 17kms. East of Trieste, also a Roman helmet with the name of the owner in pointille on the neck-guard and a set of two rivets at each temple by which the cheek-pieces were attached (Szombathy, 1912, 168f.). The decoration round the base and on the neck-guard of the Flüren helmet is not unlike the rope pattern from Vadenay and the helmet from the Rhine at Mainz.

The Coolus group may well be a more common and more important class than the foregoing discussion suggests for its almost total lack of association makes it difficult to assess. Two unprovenanced helmets, more fully discussed in the appendix, belong to this group and the vague provenance of the Spinks helmet said to be from a river in Gaul has an uncanny Coolus ring about it. The band of repoussé ornament at the base of the cap may be compared with the band of

decoration at the base of the cap of the helmet found in the Rhine near Mannheim. The everted neck-guard of the Spinks piece follows the sweep of the profile of the cap in a very similar way to the helmet from the Rhine at Mainz. Repoussé decoration is present on the helmet from Cité de Limes, Dieppe (Seine Maritime), here allied to the Coolus group; the three lines of repoussé circles round the base of the cap make it the closest parallel to the Spinks example.

The second unprovenanced helmet described in the Appendix is now in an Edinburgh collection; it may be linked to the Coolus group because of its rounded cap which deepens at the back to form the neck-guard. At its rim there is a narrow internal ledge of bronze in which there is a line of small holes around the circumference of the helmet. It has been suggested in the Appendix that an additional strip, possibly of leather, has been sewn onto the cap by means of these holes. The possible lathe spinning of the cap has been discussed in detail in Appendix (a). A pair of repoussé ribs, one at the rim and one a little above it, may be compared to a number of the decorated helmets of the Coolus type, but one of the most interesting similarities is to the lost helmets from Ogmore Down (Glamorganshire) (Pl. 31). It is satisfactory to be able to include these helmets into a European context and to link them tentatively to the Coolus group. The strange lateral decoration of the Welsh pieces may be explained with reference to the Coolus class helmet from the Rhine near Mainz (Pl. 20a); not only is there decoration round the rim between two beaded ribs, but there are small chin-strap fixtures, shaped like key-holes, which are hinged (on the inside

admittedly) at either side. The proportions of such a feature are much more in keeping with that illustrated on the Ogmore Down helmet than the cheek-piece sometimes postulated, nor would mere side decoration be required to hinge. Such an interpretation is clearly subjective and takes no account at all of the description of enamelling discussed later. The chin-strap ring of the Böckweiller helmet (Pl. 21, below) may be similar to that on the Waterloo Bridge helmet (Pl. 32); the cap-piece of the latter (imagined without the horns) may obviously be seen to be similar to the Coolus group in any case, with its rounded cap and its neck-guard which continues its profile to provide only slightly deeper protection at the back than at the front. Two of the helmets of this class may be compared to the helmet said to be from the North of England (Pl. 33). It is interesting to note that these three British pieces, each unique in its own way, may all find some specific similarity with the continental group found just on the other side of the Channel. The Coolus group are thus of some importance in providing the continental background of the British helmets, and this has been one of the main objects of the present study.

As soon as the Celtic warrior is mentioned the description by Diodorus Siculus is evoked - 'On their heads they wear bronze helmets which possess large projecting figures lending the appearance of enormous stature to the wearer; in some cases horns form one piece with the helmet while in other cases it is relief figures of the foreparts of birds or quadrupeds' (v, 30). Diodorus was writing in the 1st century B.C. and his statement forms, for example, Déchelette's introductory remarks on the subject of helmets (1914, 1156f.). This is a particularly attractive approach from a French point of view as, from this opening, there are comparative horned pieces shown on the St. Rémy monument, the arch at Orange and the blocks from La Brague, while the representation on the Gundestrup Cauldron and the discovery of the Waterloo Bridge helmet at once add international confirmation.

The point is of course that not one of the provenanced Celtic helmets examined so far does have horns of any sort. Diodorus writing in the 1st century B.C. would probably be contemporary with the Agen and Coolus types, and as the great majority of the representations of horned helmets occur in South France it might be presumed that these formed a group parallel to the Agen helmets but of which none at present survive. On the other hand it might be suggested that the horned helmet found so often on Roman trophies and coins is in some way the attribute of the northern barbarian. It is also possible that the horns, the wheeled motifs and the scroll side decoration shown on the Orange helmets may have been detachable in some way; indeed the whole head-piece may have been of leather, a suggestion always made when there is

no evidence to support an idea. In discussing the sculpture from Entremont, which dates to some time before 123 B.C., Lantier suggested that the helmet and other head gear was so close fitting that they must have been made of leather (1951, 276ff.). Examination of all the Entremont material in Marseille and Aix-en-Provence has led the writer to accept this view. The helmet may be made of shaped and possibly toughened leather, with a rope edging round the cap, a tight fitting neck-guard and two triangular cheek pieces, all edged in the same way (Pl. 22, above). The equivalent metal helmets would seem to belong to the Castelrotto type, mainly found just to the other side of the Alps, but, because it is possible to hinge the cheek-pieces by stitching, there is no need for the side roundel by which the metal hinge would be fixed. (It should be stressed that there is no evidence for cheek-pieces on the Coolus group and thus a connection with it is much less likely.) The danger of course about accepting such an interpretation is that however intrinsically probable it is that many helmets were made not of bronze or iron but of wicker or leather and other perishable materials,it is impossible to prove and it is really toofacile to suggest that the unclassifiable representations show such vanished types. It is worth remembering the wicker frames of the disc helmets of Laibach type and leather helmets were undoubtedly very practical for Pliny mentions, though not in a Celtic context, that helmets made of hippopotamos hide were quite impenetrable to darts. (Hist.Nat., viii, 25, 95.) To return to the problem of horned helmets however, it is clear from the portrayal of the wheel turning god on the Gundestrup Cauldron that such

helmets were accepted by the Celts themselves in about 100 B.C. (Klindt-Jensen, 1961, fig. 33). Even earlier horned helmets are known as an attribute of the Celtic barbarian along with the buffer torc and ritual nakedness (Powell, 1958, 255, pl. 1). At once it may be noted that in neither case do the horns issue evenly from either side of the cap-piece, and as this does not seem to be an error in perspective on the part of the artists it is perhaps wrong to imagine bronze horns like those on the Waterloo Bridge helmet. It is not impossible that the horns shown on the arch at Orange and on the blocks from La Brague (Pl. 22, centre) are not bronze but leather or animal horns and that they are attached to a leather cap-piece on which curvilinear side motifs may be picked out and the wheel motifs may be attached as a summit decoration. The arched forehead found for example on the helmet on the Volubilis bronze drape may be paralleled on the helmets from La Brague and on the arch at Orange but not from surviving Celtic examples (Boube-Piccot, 1966, 198f., pl. v; Piggott, 1968, 128ff., fig. 1). The problem remains that, though evidence for the use of such elaboration of the helmet exists, we know very little about the actual result. Horns and also spoked wheels decorating helmets certainly became a feature of Roman trophy sculpture by which the northern barbarian was distinguished for example on the dagger scabbard from Vindonissa (Pl. 30, above). Picard and Hatt in summing up the evidence of the Orange helmets suggest that the sculptor stressed the horns and the wheels, thought to be typically Gaulish, so that there would be no hesitation about the nationality of the bearers of arms not otherwise specially characteristic in shape (Amy et al., 1962, 84).

The conclusions of this survey of Celtic helmets have been implicit in the layout of this chapter. The helmets have been grouped into a number of types which are chronologically and geographically distinct; the inclusion of many more helmets than previously known has meant that for the first time a sufficient body of material has been examined for conclusions of this sort to have some validity. Over fifty provenanced helmets have been examined from the Celtic area North of the Alps, but even this number suggests that the metal helmet must have been of some rarity - a weapon worn by chieftains or leaders of the warrior bands and not one found throughout the ranks. This is one reason for the difficulty in drawing any broader conclusions about battle methods from such finds alone. The conical helmets which form the earliest groups come from the Marne Graves, like La Gorge Meillet, and a constant picture of the Chieftain is found, with his two-wheeled chariot, long sword, spears and magnificent helmet (affording comparatively little practical protection to his head) but with no shield at all. Very little is known about the armament of the ordinary foot-soldier at this time and the rich chariot burials are not necessarily a complete illustration of the practical battle array even of the chief. The Castelrotto and Batina types, whose Italian inspiration has been stressed, have been found for example in flat graves at Giubiasco, Mihovo and Batina and, although these helmets probably also belonged only to a tiny proportion of the warrior force, the armament shown in these graves - swords, spears and stout shields - probably gives as good a picture of battle conditions at that time as do the earlier and more spectacular chariot burials. The

burials at Ciumești and possibly Silivaș are reminders, however, that local conditions and techniques must always be taken into account. The helmets may have been made in local workshops, the Castelrotto type in the Alto-Adige-Trentino and the Batina group possible in Transylvania. The alternative suggestion of itinerant armourers making helmets to order, in standardised patterns, in the two different areas, also has something to recommend it, particularly because of the discovery of two of the helmets in metal-work hoards, namely San Maurizio and Sanzeno. The Agen and Coolus groups are something of a problem, particularly because of the lack of any satisfactory association with the latter group. The Coolus type does seem most reasonably to belong in date to the 1st century B.C. - 1st century A.D. The present writer envisages the Coolus type as the helmets of the Belgic tribes of North France and the Rhineland - their distribution tallies well, with some outliers admittedly, with Hawkes' map of Belgic Gaul - and that the shape of the helmet is an adaptation of the Roman legionary pattern represented for example by that found near Berkhamstead (Hawkes, 1968, fig. 1; BMGGR, 1929, fig. 74). The Agen type thus not only belongs to a different political grouping, but also owes its shape to a different prototype. There is a clear relationship with Roman helmets of Haguenau-Weisenau type, but the chronological priority of the Roman or the Celtic groups is at best uncertain and Harmand, for example, sees the influence of the Celt on the Roman armourer (1967, 87). But whatever their origin, the number and weight of these helmets must be thought to testify to the increasingly desparate position of the Gauls throughout the 1st century B.C.

CHAPTER 3

CONTINENTAL SHIELDS

The various parts of a shield may best be explained with reference to the fold-out key at the end of this volume; the flat surface of the shield may be described either as the board or, because it may have consisted of a number of narrow pieces of wood, as the planking. The shields illustrated are of long oval shape with a central longitudinal rib or spina which serves not only to add rigidity and provide better parrying than would the flat board alone, but also forms the protection for the central hollow behind which the hand-grip is situated, and it may also cover a join between two of the planks of the board. The central expansion which gives the spina a spindle shape, is often protected by a boss of iron. A rectangular iron strip which spans the central expansion and is riveted at each side to the board is known as a strip-boss. It is this iron fitting and the pair of rivets which survive most frequently and it is on the typology of these that the study of shields depends, for the boards were made of wood or wood and leather and survive only very rarely in the archaeological record. The binding to keep the various layers of the board together, for this sometimes consisted of thin layers of wood, or wood and leather, may either be a U-shaped strip of metal or a stitched binding through a band of leather. The shield was held by a hand-grip fixed horizontally across the aperture protected by the boss, and both this and the plank-and-peg technique of construction may be further

illustrated by one of the shields from Hjortspring (Pl. 27, below, left). Wooden pegs and resin cement were found here to be the most common method of attaching the various parts of the shields together and such evidence survives of course only in the most exceptional circumstances (Rosenberg, 1937, fig. 31b). This method of gripping the shield at its centre provides, however, only one point of contact and the forearm must have been bent double, with the elbow close to the hip, in order to allow the right arm freedom of movement. There is no evidence for any strap across the arm and this would certainly have given greater firmness in holding the shield. Nor is there evidence for the method of gripping employed on the hoplite shield with a central arm-band and the hand-grip at the rim (Snodgrass, 1964, 61, fig.p.36). The warrior holding his shield in this way is obviously in a stronger position than one with only one grip, and the Gaulish champion defeated by Titus Manlius (later 'Torquatus') may have been a victim of this weakness of his weapon. The Gaul, in Livy's retelling of the legendary tale, 'had a body extraordinary for its size, and resplendent in a coat of shifting colours and armour painted and chased with gold'. Titus, 'with the point of his weapon raised, struck up his adversary's shield with a blow from his own against its lower edge; and slipping in between the man's sword and his body, so close that no part of his own person was exposed he gave one thrust.....' (vii, 10). The Celtic shield must have pivoted in this way quite easily. Kimmig reconstructed the shield found at Horath in the

Hunsrück-Eifel discussed later, with an arm-band on one side of a central hand-grip, but only one of the rivets in fact survived. It is certainly still a very attractive possibility (Kimmig, 1938, 126, Taf. 53, 3a). Barbarians gripping their shields in this way are a feature of classical representations of defeated Celts but there is no good evidence for its actual use (see an Etruscan vessel from Florence, the sculpture of a dead Gaul and the Ammendola Sarcophagus, Bienkowski, 1908, 79, fig. 90; 37, fig. 50; Tafs. iv and v; Déchelette, 1914, figs. 732, 4 and 733). Grenier in an engaging description of the Celtic warrior notes that 'le fantassin tenait de la main gauche, la meme qui le bouclier, deux ou trois javelots, ou lances, ou gaison, de types divers' (1945b, 83f.). The evidence for this must be the placing of the spears in warrior graves on the left side and the sword would normally be wielded by the right. It must have been virtually impossible to rush into battle, the shield completely engaging the left hand, spears clutched awkwardly by the left arm and to use the sword effectively with the right. It is much more likely, as indeed the classical descriptions of battles attest, that the spears were thrown first probably with the right arm, and once disencumbered of these, the warrior might draw his sword from its sheath.

The mention by Livy of painted armour is one which must be further examined although there can be little surviving evidence for it.

One of the most striking features of the study of Celtic helmets of the previous chapter was the contrast

between the conical helmets of the Marne chieftains and the more practical and more numerous helmets of Italian inspiration found from the 3rd century B.C. onwards. Much of our information about the weapons of the earliest period comes, however, from rich burials which are hardly likely to be representative of the ordinary soldier. The absence of surviving remains of shields in the Marne burials is often mentioned; even the best documented burials, such as Châlons-sur-Marne, La Gorge Meillet and Somme Bionne, contained no evidence of shields at all. Although a number of shields figure in the list furnished by Joffroy and Bretz-Mahler these cannot now be confirmed by extant finds and seem to rely on earlier reports (1959, Appendix iv). Déchelette explained this absence from such La Tène I graves by suggesting that the shields were made entirely of perishable materials such as wood and leather and that for this reason they had not survived (1914, 1167). The presence of equally perishable objects such as the leather helmets or the woollen garment of the La Gorge Meillet chieftain, coupled with the fact that metal strengthening or decoration of at least some of these vanished shields ought to have survived, makes this a rather desparate solution. Perhaps the shield as a defensive arm was out of fashion and was not employed at this time; perhaps the chieftains did not find shields convenient in conjunction with their chariots. There is also very little evidence for the use of the shield in Bronze Age France and the only example on Coles's map of later Bronze Age shields is that from Castelnau-le-Lez (Hérault) where a V-notched shield is shown on a grave-slab

(Coles, 1962, fig. 1; Espérandieu Recueil, ix, no. 6816). But it is clearly just a difference of attitude whether the absence of shields is taken to show the actual situation or thought to be accidental.

The contrast between the total lack of really good evidence in Early La Tène and the mass of evidence in Middle La Tène and beyond is often commented upon, and Reinecke in noting the earliest occurrence of the classic Celtic shield in the Middle La Tène period from about 300 B.C. stresses the respectable ancestry that this type of shield has in Italy (1940, 68ff.). Is it possible that like the Castelrotto and Batina helmet types, not to mention the ubiquitous 'jockey-cap' helmets, the adoption of the shield results from what the Celtic warrior found in use in North Italy; and Reinecke's suggestion seems to be that the warriors copied the weapons of their adversaries. The situla style representations of warriors carrying shields of the type that was to become labelled 'Celtic', but in date earlier than the actual appearance of such shields in the north, have been discussed by Reinecke (1940, 68ff.) and by Klindt-Jensen (1953, 83) (Pl. 28, below). As Lucke and Frey illustrate and examine this topic fully only the broad outline need be given here (1962, 30f.). The shields shown on the Benvenuti situla are without exception round, and this style is found in the two later stages of situla style representations. On the Providence and Certosa situlae, oval shields are shown either with a central round boss or a U-notched decoration; long oval shields are also carried by the warriors on the cult vehicle from Strettweg, one of the rare pieces

of evidence from the North of the Alps. The Certosa situla also shows round shields and rectangular shields with rounded corners and similar central bosses. The warriors shown on these situlae, marching as they do in such distinctly shown groups, suggest that the North Italian armies at the time of the beginning of the Celtic incursions would be much better organised than those to which the northern barbarians were accustomed. The warrior band on the Arnoaldi situla carry rather different shields with long parallel sides and rounded ends (Pl. 28, below). The shields have a central spindle-shaped spina and some form of linear hatched decoration which may well represent a pattern picked out on the leather cover to a wooden shield. The same technique is used to show the fringed knee-length tunic worn by the foot-soldiers. Like Reinecke, however, Lucke and Frey stress that there are examples of the oval shield with central spina in Italy which both antedate any Celtic invasions and are found in non-Celtic contexts at the end of the 5th century (1962, 30f.). The present writer holds a neutral position on whether Celts are the warriors represented on the Arnoaldi situla or not, for the problem is impossible to prove either way. What is clear is that the Celts before their advance into Italy did not use the shield as a defensive weapon and that when later the remains of shields are found, they are of this type and of about these proportions. The helmets worn are not Celtic and it seems perhaps more likely that the warriors shown are important not as northern barbarians, but as the North Italian foot-soldiers whose armament the Celt copied. It may be wiser to leave

such problems till up-to-date publications of the Celtic material from North Italy are available. Krämer in an important article has tried to show that a series of graves in which parts of shields have been found are earlier in date than the Middle La Tène period which Reinecke suggests (Krämer, 1949-50, 357f.). To a large extent this appears to the present writer to be a matter of juggling with the various chronologies and the certain lack of evidence in those phases labelled Viollier La Tène Ia and b, and Reinecke A and the beginning of B, does seem to suggest the re-introduction of this arm as Reinecke suggested (1940, 68ff.). The vital feature of Krämer's study is his discussion of the priority of the spina over the strip-boss. The complete shields from Kasr el Harit in the Fayum and from Hjortspring are the most striking examples of these (Pls. 26 above and centre, 27, above right) (Kimmig, 1940; Rosenberg, 1937). As these shields are interesting because of the techniques of their construction they may be described in some detail. The Fayum shield is one of the largest Celtic, or in this case Galation, shields so far discovered; it measures 1.28m. in length and 63.5cm. in breadth. It is of long oval shape and is distinctly convex in section. The centre of the shield is sunk but with the addition of the spindle-shaped spina to cover the hand-grip, an even flat profile has been achieved. The shield has been made up of nine or ten vertical strips of birchwood, each 6 to 10cm. broad, and these are covered both front and back with horizontal strips only 2.5 to 5cm. in breadth; the cross-strips are thicker at the middle than they are at the edge of the board.

On the inside, one of the vertical strips crosses the central hole and forms the hand-grip; the hole itself is protected on the front by the wooden spindle-shaped boss. Dovetailing over the spina was a central rib which continued the vertical line to the outer edges of the shield; only one of the ribs actually survives and it measures 45.5cm. by about 1cm. The ribs and the boss were nailed to the planking. The shield board was covered with strips of sheep's felt and the edges of the strips folded over to ensure that the shield kept its shape (Pl. 26, centre). The shield owes its good state of preservation to the dry sands of Egypt and it has presumably belonged to one of the Celtic mercenary soldiers who are known to have been in Egypt as early as 274 B.C. (Kimmig, 1940, 109ff.).

The rib down the centre of the boss would seem to be skeuomorphic of a metal strengthening strip, and this feature may also be noted on a number of the bosses from Hjortspring. In this context it is also interesting to note the paintings on the walls of the corridor of the burial vault near Kazanlak in central Bulgaria; the tomb dates to the late 4th or early 3rd century B.C. and the battle scenes may represent the conflict of the Thracians with the Celts in about 298 B.C. (Micoff, 1954, 15ff., pls. iii, v, 1). Some of the long oval shields held by the warriors seem to have a central spina but none appear to be shown with a metal boss.

A discovery made in the late 1920's in the peat bog on the farm of Hjortspring on the island of Als in Southern Denmark is of considerable importance to any study of Celtic

shields,for ranged along the bottom of a clinker built boat about fifty shields and fragments of as many again had been preserved by the moisture of the peat (Rosenberg, 1937). Many of the other objects deposited were also weapons, including eight single-edged swords, two with their wooden scabbards, 138 iron spear heads, a number of antler and bone points,and 20 to 24 suits of mail which were visible as a rusty stain in which some of the rings were still visible. The shields,made mostly from soft woods such as alder and lime, tend to be squarish or rectangular in shape with rounded corners and they illustrate clearly the make-up of the completely wooden shield with board or planking background in the centre of which a wooden boss covers the hand-grip (Pl. 27, above, and below left). The greatest number of the hand-grips had pointed tenons which were almost screwed round a groove in the board and then kept in position by wooden wedges and a resin cement, and in some cases also by short nails. A number of the hand-grips are merely let into notches cut out of the front of the planking and kept in position by a wooden boss. Ten hand-grips without tenons of any sort but with the mark of a tightly bound cord have been interpreted as spare grips which the warrior carried at his belt or wrist and could be whittled into shape to replace a grip broken during combat; whether he also carried a supply of resin is not mentioned (Rosenberg, 1937, 108). The wooden shield-bosses from the deposit have a pointed-spindle shape with a hollowed centre with sufficient room for the gripping hand of the warrior. The boss was fixed to the shield by a resin cement, and in some cases wooden pegs have been inserted at either side of the boss. Many of the bosses are decorated with a vertical ridge

from tip-to-tip of the spina, and a pair of protuberances at the centre on either side of the ridge, seemingly representing rivets of some sort, are shown on a number of bosses. The ridge, clearly comparable to that on the Fayum boss, may well represent some form of metal strengthening rib and like the Fayum example the planking tends to be thicker in the middle (18 to 10mm.) than at the edges (6 to 3mm.). A shield which is obviously allied to the Hjortspring examples was discovered on what appears to be a votive deposit in Vadebrø moss in 1957 (Skalk, 1957, no. 3, 8f.; 1959, no. 1, 8f.) (Pl. 27, below right). The boss of the long oval shield is missing but the hand-grip which spans the central aperture remains in position and it is interesting as the wood has been strengthened by a cross-bar of iron. At one end there are still traces of some form of binding and a series of holes were discovered crossing this half of the shield. It is possible that the shield has been covered by strips of skin as was the Fayum example. During laboratory treatment it was discovered that part, at least, of the shield had been painted, but it is not yet known what the original colour was (in litt. Harald Anderson, January 1966).

So many shield bosses have been found from La Tène contexts that it is possible here to do no more than note a number of individual types and techniques of manufacture. Complete shields naturally claim greatest attention. The most common type of boss is the simple iron strip which arches across the wooden spina and was attached to the board by two rivets; this is Klindt-Jensen's type Ia which he

described as a rectangular plate with a semi-cylindrical hump in the middle (1950, 46) (Pl. 24, above). His type Ib is similar but the hump follows the spindle expansion of the boss beneath and thus the metal strip has an oval centre (Pls. 24, below; 25, below). Klindt-Jensen's types IIa and b are versions of the simple metal boss which covers only the central part of the wooden rib and either consists of two plates on either side of the spina or a U-shaped protection covering the wood which is nailed to the rib itself.

Krämer suggests that type II is in fact the earlier and it is thus appropriate to begin by examining some of the examples (1949-50; 356ff.). Such iron bosses are those from Zöttwitz Grave 8 in Silesia or Winterthur-Wülflingen (Zurich), which consist of a rectangular plate covering the hump of the boss and a raised central rib which arches over the wooden rib beneath. The Zottwitz boss was riveted to the wood by four rivets and the Winterthur boss has one large rivet on either side of the rib (Krämer, 1949-50, 357, Abb. 4; ed. Drack, 1960, pl. 9, 1-5 and 39). Such two part bosses, comprising a pair of small iron plates flanking the central rib have been listed by Krämer and an example from the Marne from Morains - 'Les Terres Rouges' - is illustrated here in Pl. 23, below. The importance of such bosses lies in the chronology of the graves in which they have been found. Using the Winterthur grave group which comprised a sword in decorated scabbard, suspension chains, spear-head, a La Tène Ic fibula and the boss, de Navarro has recently suggested that at the latest this grave dates from early in the Middle La Tène period (1959, 101; 1966, 154 n.8). It seems clear that protection

in this way with two small plates of iron riveted to the central rib of the shield is the earliest form of metal cover to the wooden spina. Shield bosses of this type are particularly common in the Celtic areas of East Central Europe, for example at Velká Maně, Grave 28 (Slovakia) where a warrior was covered with a large oval shield whose iron binding still survived (Filip, 1965, Obr. 84, 1; 1962, fig. 17). Such bosses are also known from the Marne, for example Grave 14 of the cemetery of 'La Corbillère', Gourgançon where the shield seems to have been rectangular in shape (Brisson and Loppin, 1938, 7, fig. 1). From a typological point of view it might be possible to suggest that bosses that come from Holubice in Moravia Graves 55 and 83 where the iron cover is itself spindle-shaped and thus matches the contours of the wooden spina very closely, are probably the earliest type of metal covering North of the Alps (Procházka, 1937, 38f. Tafs, 10 and 13). A very similar boss from St. Rémy in the Marne shows that this development cannot be pinpointed to any single area (Rossignol, 1866, pl. i, 7; Klindt-Jensen, 1953, fig. 26, c). The rounded shape becomes rectangular, then the rectangular one forms the strip-boss of later shields. The scheme is no doubt much more complex than this in fact but put at its simplest this progression certainly seems the most likely. A late example of the rounded cover with a central ridge is that from Campagnac near Uzès (Gard) (St. Venant, 1897, 498; fig. 3). The raised rib down the centre of the wooden spina and the inclusion of it in these early metal coverings is found in a number of shield bosses on which the influence of the later rectangular strip boss, riveted to the board not to the spina, appears to be paramount. The best

known of these are from Horath (Kr. Bernkastel) and St. Etienne au Temple (Marne) (Pl. 26, below; 23, above).

The metal parts covering the boss and the central rib from St. Etienne au Temple consist of a number of pieces of thin bronze; two bronze plates cover the centre of the spina behind which the hand-grip was situated and have been riveted to the shield board by conical-headed rivets. The join of these sheets was masked by a U-shaped rib which covered not only this central portion but extended on either side along the axis of the spina. The U-shaped rib is 54.7cm. in total length; it has been nailed onto the wood of the shield in four places and at its extremities a tiered rivet survives. Each side piece has been hammered to fit the wooden boss and a beading has been nailed in position where the boss and the shield-board meet. These beading strips and also the U-shaped sheath have lobed ends with a ring-terminal through which they have been riveted to the wood beneath. Thus the shape of the wooden boss is shown by these strips at the base of it, and the extent of the spina and rib are shown by the bronze which has covered them. These features are perhaps more clearly shown on Pl. 23, above. The circumstances of the discovery do not seem to have been recorded; the boss is in the Musée d'Antiquités Nationales at St. Germain-en-Laye, Inv.No. 18742.

The interesting grave from Horath belonging to the Hunsrück-Eifel culture was published in detail by Kimmig in 1938, but he was unable to suggest any exact date for the grave. It is possible that the iron boss, rib and binding should be compared to that shown on one of the sections of

the Pergamon frieze (Pl. 61, upper) where a similar scalloped edge is also shown. It is interesting that both the simple spina shield and the rather later type with metal covering across the centre of the mid-rib are shown on these friezes.

One burial from the Marne has not so far been mentioned in any study of shields, that from Grave 8 at 'La Fin d'Ecury' at Fère-Champenoise at one side of the primary warrior burial of a square enclosure (Brisson and Hatt, 1960, 9f., pl. i, fig. 3). The shield has been laid on the body of the warrior and is of characteristic long oval type and a part of the U-shaped binding also survives. Two La Tène II fibulae at the warrior's shoulders show he was wearing a loose fitting garment. The sword and suspension chain and spear were laid out at the warrior's right. The boss of the shield is a strip-boss with three rivets on each flange; a short metal covering to the spina also survives but there is no rib across the strip-boss itself. The primary warrior burial illustrates the same three arms, but the spina cover is not present and the shield itself is of hexagonal shape with straight sides. It seems that very little stress should be laid on the difference between rounded and hexagonal shields so long as the cover provided is about the same. In these cases the shields would cover the warrior from the warrior's feet to just below his shoulders, very much indeed the protection shown on the Mondragon statue (Pl. 28, above left). These two burials also illustrate an interesting feature of the U-shaped binding of such shields, for in both cases this does not surround the shield completely but is only present at one end or round one half. Nor does this appear to be fortuitous

as the terminals of the binding have tabs by which these ends have been firmly nailed to the shield board. Perhaps to increase the lightness of such a shield only the bottom was provided with a metal surround.

The Pergamon reliefs of the early 2nd century B.C. on which a helmet of the Batina class was depicted and which are also an important source of information about the body armour of the Celtic warriors in East Europe must be examined because a number of shields are illustrated. The long oval Celtic shields have been isolated from the mass of trophy weaponry by Jaeckel and they may be discussed along with two, shown only in part, which are rather more rectangular (1965, 110ff., figs. 48-52 and 53-4). Seven Celtic shields in all are shown here but only four in detail and of the other three only the shape and the central spina may be made out. On both rectangular examples the binding strip is also shown. Pl. 29, below, illustrates the classic Middle La Tène shield of long oval shape with a binding round its edge and a spina whose central expansion, designed to cover the hand-grip, was protected by a strip-boss with mitre-shaped side flanges. A broad-headed rivet in the centre of each flange fixes the boss and also possibly the spina to the planking of the shield. Jaeckel's figs. 49 and 50 are less informative but both show the spindle-shaped spina of the centre of the shield. On the former, a central ridge is picked out along the length of the spina itself, a feature which may be paralleled at Hjortspring and in Slovakia (Klindt-Jensen, 1953, 84, figs. 266, 27-8). The final shield of this group which may be mentioned (fig. 52) is also of long oval type with a central spina and a strip-

boss. The outer edge of the flange is scalloped slightly, thus rather reminiscent of a boss from La Tène and also of the loop-plate of a sword from Bevaix (Neuchâtel) (Vouga, 1923, 57f., pl. xv, 11; Viollier, 1916, 124, pl. 38, 21). Only one boss from La Tene has this decorative feature 'les extrémités découpées' and Vouga links this particular boss to the Bevaix assemblage and considers both late (that is late in Middle La Tène). This representation on the Pergamon frieze shows however that this type of shield boss must have been current among the Celtic tribes in the East before 181 B.C. and one must presume a rather longer span for this type of shield. In the same way a longer use and certainly an earlier beginning has had to be suggested for the helmets of Batina type. But niceties of chronology apart, this shield and another on the Pergamon trophy are interesting as they also illustrate the use of strips of binding across the front of the planking (Jaeckel, 1965, figs. 50 and 52). These are surely comparable to the covering strips on the Fayum shield shown on Pl. 26, above and centre.

Like the Batina type of helmet, the shield style shown on the Pergamon friezes may be compared with extant examples from Romania. At Corlate in Oltenia, for example, grave 1 contained a La Tène II sword, rings of the suspension chain, fibula and a shield boss with rather similar mitre-shaped side flanges to those on the Pergamon shields (Pl. 29, below) (Nicolăescu-Plopşor, 1945-47, 22, pl. ii).

The complete shields from La Tène itself vary in length between 1m.10cm. and 1m.4cm. and in breadth between

about 62cm. and 53cm. The wooden objects were moulded *in situ* and this accounts for the impressions of the pebbles in the shield board itself (Pl. 24, above); the rectangular strip of iron arched over a spindle-shaped wooden *spina*, and a raised rib along the centre of the *spina* is still clearly visible. The iron strip-bosses were kept in position by rivets in the side flanges, most frequently one large rivet in each side (Pl. 24); sometimes however there are four smaller holes at the corners of the strip.

The first shield found at La Tène, in 1911 and 1913, comprises three planks, one the broader central strip which accommodates the hole for the hand-grip and two other planks at either side (Vouga, 1923, pl. xvi). It must rank as one of Déchelette's most percipient remarks, for in 1911 when only the rectangular central portion was discovered he showed how unusual this would be without side pieces, which were indeed found two years later (1914, 1170, fig. 494). It is amusing that he describes this discovery in terms not of a votive deposit but as an early road accident. 'Les fouilles.....ont exhumé le squelette d'un guerrier gisant à côté de ses armes et des débris d'un chariot. Ce Gaulois avait dû tomber dans la rivière avec le véhicule.' Two more complete shields were also discovered, as well as more than twenty iron strip-bosses. The hand-grip of such shields are well illustrated at La Tène where a number of thin bands of iron which have been riveted on the rear at either side of the hole in the board are shown. Some of these have decorated terminals but all must have been bound round in some way, either with strips of wood or with leather as on that shown by Vouga (1923, pl. xvi, fig. 8). The complete shields

discovered at La Tène however all had wooden hand-grips without metal additions.

The discovery of one of the La Tène shields with a sword slit extending from the top edge to the umbo along with a sword in three parts beneath it suggests that sword and shield had been rendered useless before their votive deposition. The inevitable comparison with Caesar's statement about the shields of the Helvetii has thus rather less force. 'The Gauls were much hampered in action because a single spear often pierced more than one of their overlapping shields and pinned them together; and as the iron bent, they could not pull them out.' (De Bello Gallico i, 25).

A rectangular strip-boss with a central hump and a rivet in the centre of each flange has become known in recent years as the Mandach type of boss after a warrior grave in the Swiss canton of Aargau, and a number of similar burials have been listed by Drack (1954-5, 220, Taf. 63, 2a-c). Violllier also illustrates the Mandach grave group which consisted of an iron La Tène II sword in a bronze scabbard, an iron spear-head and the iron strip-boss (Viollier 1916, 101, Pls. 38, 17; 39, 12; 40, 20). The armament represented by the sword, spear and shield have been labelled the Dreierausrustung and the burials of the Swiss Plateau show that this has been standard military equipment in the 2nd century B.C. A number of Giubiasco graves show its continuation into the 1st century B.C. or even later (Drack, 1954-5, 220ff.). It is startling to note the diversity of helmet types discovered in the Giubiasco Graves along with variants of the Mandach shield boss; two graves have Negau

helmets (119 and 262), one a Castelrotto and one an Agen type (Graves 263 and 32 respectively) and the helmets of Gallo-Roman types which have not been considered here (Graves 71 and 330). The discovery of a chariot at La Tène is a suitable link to one of the rare chariot burials which show the continuation of this tradition into Middle La Tène or in North France perhaps one should speak of La Tène II. The chariot from the Forêt des Pothées in the Ardennes was deposited in a circular grave with a squared ledge on one side to accommodate the yoke. The skeleton of the warrior had not survived but had been laid on the floor of the chariot and along the pole, the spears and single-sided knife and five pots had been placed on his right, a La Tène II sword, scabbard, suspension chain, and the shield on the left (Fromols, 1955, 8f., 25; Stead, 1965, 14). Only the iron boss of the shield survives and this is not well illustrated; it is described, however, as humped with expanding sides 'en aides de papillon' and compared to that from Vevey, Grave 26 (Vaud), and Landenburg (Baden). The Vevey burial is one of those listed by Drack as representing the warrior's three-piece equipment; it was an extended inhumation in a wooden coffin, and two fibulae found at the shoulders of the skeleton suggest that the body had been clothed with a loose fitting garment of some sort or possibly a tunic with shoulder straps. An iron La Tène II sword and scabbard, bound round with the warrior's belt, was placed at the right side with his broken spear along side. The iron shield boss was discovered just above the knees of the skeleton; this position suggests that the boss had not been removed from the shield but that the complete board had

been deposited in the coffin. The boss which measures 36.8 by 25cm. is shaped like a double-headed axe with an expanding flange on either side of the central hump, which was designed to follow the contours of a spindle-shaped spina (Pl. 25, below). There is an opening top and bottom to accommodate the points of the wooden spina, and the boss itself has been attached to the planking of the shield by a rivet in the centre of each flange. No other parts of the shield survive and it is likely that the hand-grip behind the boss has thus been wooden and either pegged onto the shield with wooden nails or let into the backing in a similar way to those described later from Hjortspring, Vadebrø and Clonoura, (Vevey, Grave 26 (Vaud); Naef 1902-3, 38ff., fig. 33, pl. iii; Viollier 1916, 133f.; Drack, 1965-5, 220).

It is uncertain to what extent differences in the shape of the flange of La Tene II strip-bosses indicate different traditions or are mere chance variations on a standard pattern. One distinct form, represented by the bosses from Batina and Bevaix, consists of trefoil flanges on either side of a simple arch. The burial at Bevaix, Boudry (Neuchatel) was discovered in 1882 and was accompanied by a sword, scabbard, punched belt-chain, spear, butt and broken fibulae. The boss has been attached to the planking of the shield by two rivets, one in the centre of each flange. De Navarro notes that the punched sword-chain places the burial in an advanced stage of the Middle La Tene period (1966, 152) and it is dated by Wyss to La Tene C (1960, 26f., pl. 9(14-16)). (Vouga, 1885, 16, 21, pl. i, fig. 6, pl. xx, fig. 1; Viollier, 1916, 124, pls. 38(21), 39(11), 40(19 and 22);

Millotte, 1963, 271). It is interesting that de Navarro should compare the sword from Bevaix with one from Mokronog-Nassenfuss for one of the few comparable shield bosses comes from the same cemetery (Déchelette, 1914, 1172, fig. 495(2); Vinski-Gasparini, 1959, 289n). The most important representative of this trefoil type of strip boss comes from the Batina find on the West bank of the Danube in Croatia. The boss was associated among other things with the grip for the handle of the shield, as well as two concave pieces of the iron cover. A decorated sword scabbard found with the deposit has, like the pieces from Bevaix, been dated to the punched sword-chain horizon and thus to an advanced stage of Middle La Tène (de Navarro, 1966, 150). Todorović dates the Batina umbo to his Period III, phase B in the 2nd century B.C. (1966, 40). With this small group of shield bosses comparatively firmly dated, it is interesting to note the association at Batina of this type of shield with a two-piece boss already discussed. (Vinski-Gasparini, 1959, 289, Tab. i(10-11); Klindt-Jensen, 1953, 84, fig. 26e). A second type of strip-boss may be shown to exist at each end of the Celtic world; it is a narrow band with a central horizontal rib and triangular flanges through which the boss has been nailed to the board. This shape appears in burials at 'Saint Mard', Gourgançon, Grave 9 (Marne) (Brisson and Loppin, 1938, 3, fig. 3), Neunkirchen Grave 2 (Nieder-österreich) (Pittioni, 1954, 681f., Abb. 470-1; Filip, 1956, 133, Obr. 41) and even in Poland at Ivanowice, Miechów (Filip 1956, 121, Obr. 38). But beyond noting this as one of the varieties of the simple strip boss nothing else can be added.

Rossignol, the conservateur-adjoint des Musées impériaux, published a paper in 1866 on the shield bosses found in the excavations that were then going on at Alésia, and he appears to have been the first to recognise the function of the strip-boss. He linked the strip-boss to the full-size sculpture from Mondragon (Vaucluse, 1866, 45ff.) (Pl. 28 above, left). The representation of shields in sculpture opens up a subject too vast to consider in detail here. Gaulish weapons shown on Greek, Etruscan and Roman monuments were examined by Couissin in 1927 and 1929 and although his presentation of the material is naturally dated, his discussion is still very complete for shields (see 1927, 304ff; 1929, 259ff.) In 1928 Couissin examined the Celtic defensive weaponry illustrated on Roman coinage (161ff.). The monograph on the Arch at Orange prepared by Amy et al. in 1962 shows how much information may be gleaned from such monuments; and their isolation of the shields, helmets, and swords for example was followed by Jaeckel in his discussion of the weapons on the Pergamon balustrade (1965). The barbarian shields shown on the Orange Arch, which was built about 21 or 26-7 A.D., are of great diversity and belong not only to the simple spina type but also to the spina and strip-boss and to round-bossed shields with vertical decoration. This argues against any chronology of shield types which is too compartmented, for although new ideas are introduced, first the strip-boss, then the round boss, the older techniques seem to have continued in use (Amy et al., pls. 45-48). Such sculpture provides information on one subject on which there is virtually no other source, that is on the decoration of continental shields. Carefully executed

tendril and floral patterns are picked out on many of the boards, often reminiscent of the decorated spinae of the shields illustrated on the situla style scabbard from Hallstatt (Kromer, Taf. 202). Frequently the name of the warrior (or perhaps the maker) has been added rather like a diplomata. The cranes which are shown on at least two of the shields are comparable not only to those on the cheek-pieces from Vinji vrh (Pl. 18, upper) but also to the device emblazoned on the Witham shield in its first form. Such motifs may have been nailed onto the shield board or they may have been picked out in colour. Diodorus' description is well known, but it illustrates this very clearly 'their armour includes man-sized shields, decorated in individual fashion. Some of these have projecting bronze animals of fine workmanship which serve for defence as well as decoration.' (v, 30). Tacitus, talking about the Germans in general, notes that their shields are painted 'scuta tantum lectissimis coloribus distinguunt' (Germania, vi). Traces of paint are said to exist on the shield from Vadebrø (Pl. 27, below right) and thus some confirmation for the importance of paint can be obtained from the archaeological record. They need not always have been picked out with bright colours, however, for the Harii, in what is now South Poland, made their shields black as well as dyeing their bodies black according to Tacitus (Germ., xliii). This would contrast with the description of the advance of an army in the Gododdin, an early Welsh heroic poem where a white cloud rising above soldiers was caused by clashing their swords and shields together, and this created a cloud of dust of the white wash with which the shields had been covered. (Jackson

in a lecture in Edinburgh, March 1966).

Sometimes the painting of the shields is described in a derogatory way by classical authors, as in the speech Tacitus puts into the mouth of Germanicus in the Annals (ii, 14) 'The barbarians' huge shields, their enormous spears, could not be so manageable among tree-trunks and springing brushwood as the pilum, the short sword, and close-fitting body-armour. The Germans carried neither corselet nor headpiece - not even shields with a toughening of metal or hide, but targes of wickerwork or thin, painted board.' This general flimsiness is mentioned by Caesar and by Livy; Caesar describing the arms of the Aduatuci talks of 'shields made of bark or wickerwork and hurriedly spread over with hides (as the shortness of time necessitated)' de Bello Gallico, ii, 33. Sometimes such comments seem to suggest that the statement is a standardised one for example Caesar ibid., i, 26 'The Gauls were greatly encumbered for the fight because several of their shields would be pierced by a single javelin-cast'; and Livy writing about the Galatians 'the Antesignani of the legions hurled their spears. The men (Gauls) indeed were not confused by them, but their shields in many cases were pierced and fastened together' (xxxviii, 22). This does raise one interesting point as it seems to show that the Celts sometimes fought in formations which involved the overlapping of their shields, and this must have been a battle idea borrowed from the Romans themselves.

The use of wickerwork for shields has not received any confirmation from actual finds in the way helmets of the

Laibach type show its use as a headcover. Bienkowski reported a suggestion by Perdrizet that the ribbing incised on the various portions of the shield from Mondragon (Pl. 28, above left) might represent reeds (1928, 151). Vouga wondered whether the scoring might not be a key for colour, but with the discovery of plaited fibre at La Tène he wondered whether such shields might not in fact be covered in this way with some form of matting (1923, 62). The differing motifs in painted or appliqué decoration on shields may be noted in profusion on Celtic coinage (de la Tour, 1892/1965, pl. xiii, nos. 4446, 4439, 4460, 4484 (Pictones); pl. xv, no. 4597 (unknown origin); pl. xxii, nos. 6756, 6759, 6761, 6762 (Redones); xxvii, nos. 9374, 9375 (Germani)). Cross-ribbing, surely an indication of a strip-make-up of the shield, is distinctly shown on the coin of the Pictones no. 4484 (here, Pl. 64, below) and this might be compared with the Fayum shield (Pl. 26, above). It is possible that a shield made up in strips in this way might be what is described as wickerwork by the classical writers mentioned above. One of the useful and possibly most informative aspects of such representations of shield-bearing barbarians is that they show the relative size of the shield to the warrior. The shields on the bronze plaques from Baratele, Este, would cover only the upper part of the body, between say the shoulders and the knees; these date to the 4th to 3rd century B.C. (Klindt-Jensen, 1953, fig. 88). They show the existence of the strip-boss and spina in North Italy at this date as do the miniature shields (ibid. fig. 89). The Cività Alba frieze in the Museo Civico, Bologna, dating

to the later 3rd century B.C. illustrate naked barbarians, possibly recalling the sacking of Delphi in 279 B.C., with rather rectangular shields with a vertical spina and a strip-boss clearly shown (Pl. 30, below). These shields would provide possibly rather less protection, only to the torso and are rather narrower than the width of the chest as shown on these figures at least. This recalls Polybius' description of the battle of Telamon, 'For the Gaulish shield does not cover the whole body; so that their nakedness was a disadvantage and the bigger they were the better chance had the missiles (the javelins of the Romans) of going home.' (ii, 30). A small figurine only about 4.5cm. in height shows a proportionately much larger shield providing protection from the feet to the shoulders of the tiny warrior who is shown wearing a 'jockey-cap' helmet. The shield has the rim decoration, the spina and strip-boss of La Tène II type (Klindt-Jensen, 1961, 53f., pl. v). Such differences in cover are of some interest when the measurements of some of the complete shields are tabulated;

Fayum	12.8 x 63.5 cm.
Horath	94 x 36
La Tène 1911 & 1913	104 x (28 x 34) 62
1913	110 x 53
115	102 x 48

Many of the Hjortspring shields are smaller than these; 84 x 40cm., 81.5 x 41cm., 40-55 x 33cm., 86.5 x 31cm. and 66 x 29.5cm.

Really only those from the former group would provide protection from knee to shoulder, while the Hjortspring shields would in general cover rather less of the warrior's body.

Up to now no detailed mention has been made of round bosses essentially because little new material can be added to that already clearly known. The round boss appears to be a La Tène III product (that is mainly in the 1st century B.C.). Among the earliest representations of circular shield bosses and flanges are those on the Gundestrup Cauldron, taken to be a product of the lower Danube (of about 100 B.C. in date or even earlier). Indeed the British shield from the River Witham may well be one of the earlier European examples of such round bosses. The round conical bosses on the warrior plaque of the Gundestrup Cauldron are perhaps best seen on the cover of Klindt-Jensen (1961), and may well represent those which are fixed to the shield board by broad-headed rivets hammered in round the outside of the flange. Round shield bosses have been found at Blăsnata Mogila near Borovan in Bulgaria, with round-headed rivets hammered through the flange itself (Nikolov, 1965, Abb. 33), and at Dobrosloveni in Oltenia without further association (Nicolaescu-Plopşor, 1945-47, pl. v, 10). The sword and shield boss from the Blasnata tumulus are very similar first to those found in the late La Tène cremation burial at Kelheim in Southern Bavaria (Krämer, 1952, 334f., Abb. 2) and to the assemblage from Magdalenska Gora, tumulus v, grave 42, which contained a cremation burial with a rather earlier sword, ritually bent, a suspension chain, spear-head, knife and a round iron shield boss (ed. Mahr, 1934, 79). It may be worth noting in passing that a good deal of the armament shown on the warrior plaque of the Gundestrup Cauldron may be compared to actual discoveries in Slovenia and the

South Alpine area, the helmets and belted tunics on the Idrija figure (Pl. 59, below, 2) and the round shield bosses to th those from Magdalenska Gora and Idrija grave 22 (with a La Tène II fibula) (Szombathy, 1903, 34, fig. 76). The discovery of a Craiova type of whirligig in the Magdalenska Gora cemetery shows that such contact was present in other fields too. If the writer were asked to hazard the area of origin of the round bossed shields of the type under discussion certainly the Slovenian and South Alpine regions would seem likely but there is no evidence for this suggestion. Klindt-Jensen has divided round bosses into three types; conical on a low cylinder (IIIa), hemi-spherical on a low cylinder (IIIb), closely related to it the hemi-spherical (IIIc) and spiked bosses are listed as IIId (1949, 47ff.). But it is rather uncertain to what extent such differences represent accidental changes in manufacture or genuine local traditions; there seems to be no doubt about the mainly first century B.C. occurrence of the round shield boss. In the West Celtic area the best known examples are from Alésia (Côte-d'or) and on the sculpture from Vachères (Basses-Alpes) (Pl. 28, above right). On both these examples the broad-headed rivets are nailed through the flange onto the shield board (Verchère de Reffye, 1864, 348, fig. 17; Bienkowski, 1928, 153, fig. 229).

Rather like the Agen type of helmet discussed in the last chapter, it is difficult to suggest whether the Celtic tribes used such round bosses before contact with Roman armies in the 1st century B.C. It does seem likely that the use of this type of boss is an original Celtic re-adoption of this

style. The frieze of Ahenobarbus, ~~or~~ sometimes said to represent the foundation of Narbonne, shows Roman legionaries with long oval shields with a spindle-shaped spina. The date of the sculpture is the subject of some controversy but a late second to mid-1st century B.C. date appears to be most likely; this is discussed by Harmand (1967, 55f.). The round bosses from Gundestrup, Alésia, Kelheim for example do seem to suggest the priority of Celtic use of this type.

The majority of such finds come from what was to become Germania, but there is no reason to suppose, as has sometimes been suggested, that the Alésia bosses have belonged to Germanic auxiliaries and Klindt-Jensen has listed a number of examples from France and Italy, including the statue from Vachères (1949, 47). Von Merhart notes one from St. Pauls in Eppan in the Tirol with eight flat-topped rivets joining the flange to the board and provides a further list of comparative pieces (1940, 88, Abb. 2). A grave find from Mouriès (Bouches-du-Rhône) contained a round iron shield boss, an iron knife, a long iron spear head and an anthropoid sword (Déchelette, 1914, 1140f., fig. 474, 4; Clarke and Hawkes, 1955, 224). Further examples have been noted by the writer in the museums of Chalon-sur-Saône, Epernay and Neuchâtel.

Danish round shield bosses have been discussed by Klindt-Jensen (1949, 47ff., fig. 19) and they are of interest to the present study only in that they provide the best continental parallels for the bosses from Hunsbury (Northamptonshire).

Round bossed shields are shown in profusion on the Arch

at Orange, the property of Roman and barbarian alike. Round bosses also occur on the long shields held by barbarians on Roman auxiliary grave stelai in the Rhineland, and often a longitudinal spina is also illustrated. An interesting example of shields of this type is found on the Roman bronze dagger scabbard from Vindonissa (Pl. 30, above); there are two tiers of ornament, the upper shows a trousered barbarian on his knees while a Roman cavalryman drives a spear into his back; below this is shown a trophy, set up on a tree and this comprises two shields with round bosses and spinae as well as a kilted corslet and a bowl helmet with cheek-pieces and possibly horns (Vindonissa Illustrata, 1962, pl. 13). The Rhineland stelai are fully shown by Espérandieu (for example Recueil ,vii, nos. 5785, 6435; viii 6014, 6016, 6018).

The evidence for the shields of the continental Celts cannot be tabulated into such neat groups as can the helmets but from the three main sources a detailed picture of what the shields looked like from the 3rd century B.C. down to the conquest of the various areas by Rome may be formulated. The different shapes of shields seem to be a matter of individual taste or, in the case of such a series as Hjortspring, perhaps the taste of the armourer. Perhaps in some examples the size or shape has had to do with the material at the warrior's disposal. The simple spindle-shaped spina or rib

seems to be the earliest form, and a rectangular iron strip riveted across the central expansion of the spina appears to be a later type. The round bossed shield seems in general to be a product of armourers in the 1st century B.C. Even the earliest type continues in use to this date and beyond, and it is thus not possible to draw clear cut chronological dividing lines. The boards were made of wooden planks, or strips, perhaps sometimes of wicker, and they may have been covered with leather or cloth. Frequently the shield board would be decorated with painted or appliqué designs and perhaps one of the saddest aspects of the study is that there is so little surviving evidence of this ornament. Classical writers describe the Celtic shields in lavish and colourful detail; sculpture such as the Arch at Orange illustrates the diversity as well as the profusion of the ornament on the shield boards. When faced with a crumbling iron strip-boss in a museum, it is all too easy to forget what a magnificent and awe-inspiring array the shields must have been on the battle-field.

CHAPTER 4

BRITISH HELMETS

The helmets or helmet fragments from Britain can be discussed from the following main standpoints - from their use in defence or parade, or as pieces of British Celtic art which may be 'fitted in', if possible, to the various chronological or stylistic schemes.

The contexts in which the British pieces have been found are as diverse as their shapes. At Ogmore Down, the three pieces of helmets come from the graves of warriors whose armament also included swords or daggers and spears. In the brutal excavation of these graves, discovered in the course of digging for lime, it is most unlikely that any shields would have been discerned unless they had been decorated with large areas of sheet metal. The Waterloo Bridge helmet, found in the bed of the Thames had presumably been cast there as a votive deposit. From the excavation of a Herefordshire hill fort at Croft Ambrey comes the only British cheek piece extant. The provenance of the helmet which was in the Meyrick Collection and which is now in the British Museum, is not known. The Waterloo Bridge helmet is the least likely piece to have come from the Celtic armoury, and, because of its presumptive votive final deposition in the River Thames, it is reserved for discussion along with ritual horns and head-gear not necessarily intended for the battle field but possibly for adorning temple statuary. It is important to remember that the cult of the head and the reverence of the horned god in Britain are to be weighed against an apparent reluctance to defend the head

specifically. The small number of helmets found in Britain does not necessarily represent the poverty of the ordinary warrior or his reliance on wickerwork or leather; it suggests more that the warrior band had such confidence in their prowess, a collective certainty spurred on by bragging tales at alcoholic feasting, that to indulge in such an elementary precaution was a self-inflicted insult to one's virility.

Tacitus, describing the advance of Ostorius and the defeat of Caractacus explained that the barbarians 'lacked the protection of breastplates and helmets; if they offered resistance to the auxiliaries, they were struck down by the swords and javelins of the legionaries; if they faced the legionaries, they fell under the falchions and lances of the auxiliaries', (Spathis et hastis) Ann. xii, 35. Weapons of most inferior calibre, to Roman eyes at least, always seem to be the lot of the Celts with their disorganised battle array when described by classical authors, but lavish display was possible in victory or in defeat and it is naturally unfortunate that most of our information comes from such pieces destined for military display.

In date only the pieces from Ogmore Down are subject to much difference of opinion and as one view would have them the earliest of the British helmets it is appropriate to begin with them (Pl. 31). Jope (1961, 321) suggests rather obliquely that the helmets may correspond to the La Tène I brooches in Britain of continental origin and to the La Tène I daggers which he would date to before 300 B.C. This is admittedly reading a lot into his foot-note, but it is easy to see the genesis of such a suggestion. The use of twisted wire, which is not easy to parallel other than on

torcs, is found in some of the strainer wires on the chapes of several La Tène I daggers from the Marne (ibid., 314, fig. 5, C. and D.). The helmets demand comparison with pieces like Amfreville for their use of precious metals and because of the similarity of their lyre-shaped side ornament. The fragments from the Oppidum of Tronoën, St. Jean-Trolimon (Finistère) would form the geographical link to the western seaboard, and two early chapes from the same sites, with milled rosettes like the Amfreville helmet, might be seen to forge the link further (du Châtellier, 1907, pl. xvi, bis., 3 and 11). As the Ogmore helmets were grave deposits it might be thought possible to link them with the well known Welsh Iron Age grave find, the Cerrig y Drudion (Denbighshire) hanging bowl, found in a slab-lined grave (with no capstone) where a little leather was noticed amongst the soil (Smith, 1926, 276). More comparable, however, and still within the region of the western seaboard, are cist burials from Gelliniog Wen, Anglesey and from Catioroc, Guernsey. An inhumation in a cist from Gelliniog Wen was accompanied by an iron sword in a leather scabbard cover which had thin iron plates on the front of it (RCAMW, Anglesey, 1937, pl. lxxix and pl. lxix, fig. 1.). An iron suspension ring was also found. The sword belongs to Piggott's Group V (1950, 28) of La Tène III derivation, dating to the 1st century B.C. or the last A.D. The bone handle and the sword blade may be compared to the Eastburn (E. Riding, Yorkshire) assemblage where the sword has a horn handle, and Stead envisages a similar dating for this grave group (1965, 82f.). The recent discoveries of burials from the Isle of Wight and Owslebury are also relevant in this context and comparable in date, and are more fully discussed later.

From Catioroc, a warrior burial was accompanied by several socketed iron spear heads, fragments of iron knives, a sword, rings of bronze and iron probably from the attachment belt, and a strip shield-boss (Kendrick, 1928, 190, fig. 89). The sword has a hilt possibly of cocked-hat derivation (Piggott, Class IVB), and the pot is ribbed and has a wheel-turned base. The grave would seem to date most probably to the early 1st century A.D. From La Hogue au Comte on the same island, a cist contained an iron sword with ornamented scabbard, fragments of another, and a broken spear head, bronze rings and beads and 'fragments of a vessel of thin bronze plate' (Kendrick, 1928, 196, figs. 91 - 2). Pottery associated with the cist and the heart motif of the scabbard decoration would indicate a similar date.

There are several reasons against the earlier dating suggested for the Ogmore pieces. The decoration of the lyre-shaped side-piece, shown on both sketches, cannot be considered artistically comparable to the style of the hanging bowl or to the Amfreville helmet. If this side-piece is correctly represented in proportional size to the helmets, it seems to have moved some way from the continental notion of side-pieces in balance in size to the cheek-pieces. Its method of fixture and a rather derivative lyre motif have all the attributes of an anachronism. But a later date does not rest wholly on such subjective criticism. The two bronze ribs round the rim had a filling of blue enamel and Simpson (1966, p. 169 f.) would take this to indicate a mid-1st century A.D. date or later for the helmets. This might seem to lay too much stress on enamel colour, but there seems

to be no doubt about the date for the appearance of blue enamel. Perhaps not enough is known of the circumstances of colour change in enamels under certain conditions; for example, the red enamel on a pin from Freswick (Caithness) has altered its colour by some of the cupric red oxidising to green and has given a red and green marbling effect. But this appears to be unusual, and the blue enamel does suggest that the earlier date postulated is not tenable. It is interesting to speculate what archaeologists to-day would have made of earlier descriptions of the Amfreville helmet if it had been lost, for writing in the 1860's Viollet-le-Duc thought he saw white, green, blue and red enamels which Coutil was quite unable to confirm fifty years later and which are certainly not visible to-day (1902, 83; 1912, 2).

It has already been suggested that the pair of ribs at the base of the cap and the side decoration may be compared with helmets of the Coolus group in North France and the Rhineland. This is clearly a tentative link and involves the interpretation of the hinged side ornament as a chin-strap attachment like that on the helmet from the Rhine at Mainz (Kessler, 1928, Abb. 1) (Pl. 20a). On this piece which it particularly important as far as the genesis of British helmets is concerned, a band of decoration borders the base of the cap and neck-guard, but there is no sign of any enamelling on this nor on any of the Coolus group. The chin-strap attachment of this Mainz helmet may also be compared with that from the North of England.

The iron barbed dagger from Ogmore Down is not a common type but it may be compared to a Roman weapon in the Tulliehouse Museum, Carlisle. A late dating is accepted without argument

by Hogg (in ed. Foster and Daniel, 1965, 128).

In profile and in their use of a domed template for attaching a top-knob, the Ogmore Down helmets can be linked with the helmet now in the British Museum and originally in the Meyrick Collection; it is described as'from the North of England' but there seems to be no concrete foundation for this statement though as will be seen this proves in fact to be the most probable source (Pl. 33). It can be dated with some confidence to between the Claudian invasion of 43 A.D. and the defeat of Brigantia in 71/74 A.D., and Simpson (1966, p. 170) would prefer a date nearer the later event. Any comparison between the Ogmore and 'North of England' pieces brings out the archaisms of the former. The broad neckguard of the 'North of England' helmet is linked not only to Roman legionary helmets but also to those of Agen type and to such pieces as those from Tongern and from Mainz (Pls. 20, below, 20a).

Apart from the decoration, the noteworthy features of the 'North of England' helmet are its deep neckguard, which incidentally suggests that the helmet would be worn pushed back over on the neck, rather than sticking straight back vertically, and its conical shape. In this it is somewhat akin to the 'jockey cap' series of helmets already discussed, a form used by Romans and Celts alike and for which there is so little dating evidence. One from the Meuse at Buggenum in Central Limburg, however, must be contemporary with this British example. It has an inscription on the neckguard, K.A.P XIII.G and this legion, the Thirteenth, was sent into Germania in 70 A.D. to suppress a revolt on the Rhine, but in the winter of the same year was returned to Pannonia. The piece must therefore date to some time just before this

(Bogaers, 1959, 85ff.). It seems reasonable to suggest that the summit decoration of the British piece, to which the holes and the differential patina attest, may have been very similar to the hollow knob of the 'jockey cap' variety; any larger addition would destroy the proportions of the piece (to twentieth-century eyes at least).

From the Rhineland come two native pieces which have already been noted in their continental contexts - Tongern and from the Rhine at Mainz; both have similar deep neckguards, and both would be worn high on the forehead. The presence of Tungrian cohorts in Agricola's army during the northern advance is thus of particular interest, for this tribe was settled in the area of Tongern (Tongres) near Liège, and the shape of the Meyrick helmet may be due to such a contact (Agricola, xxxvi, 1). The deep flange neckguard is also a feature of Roman legionary helmets and it is likely that both this small group of native helmets and those of the Agen class have been influenced by such Roman pieces as that from Colchester, deposited between 61 and 65 A.D. (Hawkes and Hull, 1947, 336 f., fig. 62). The most startling similarity in shape between the Meyrick helmet and a Roman example from either the River Thames or the River Walbrook, London, has been remarked on more than once. A bowl cap-piece and a broad neckguard are present on both helmets and although the Roman example is undecorated, plume holders show that in battle or parade additional ornament could be added (BMARB, 1958, 67, pl. xxvi, 5; Webster, 1956, 26, pl. iiia). Webster notes that this is the lighter type of legionary helmet which was used by troops in Britain, but it is interesting to parallel the forehead rib and the pairs of lateral rivets with

the helmet from the oppidum of Vié Cioutat in the Gard which was discussed along with the Celtic helmets of the Agen group. The shape of the neckguard of the Meyrick helmet is closely comparable to the Walbrook example and it might be suggested that the side piece decoration with red enamel studs represent the same notion as the side plume holders. The Walbrook example has been described as a standard first century legionary type (BMARB, 1958, 67), and such helmets have been discussed in some detail by Brailsford (1952, 17 ff.).

The mark on the inside of the Meyrick helmet illustrated on Pl. 34, above, by which the chin-strap or cheek-piece mechanism has been attached is clearly comparable to that on the inside of the Nebringen helmet which has clearly possessed cheek-guards of some sort (Krämer, 1964, Tafs. 11 (7) and 12), and to the inside of the Mainz helmet on which chin-strap fixtures are attached by a fold-over loop of bronze riveted to the cap (Kessler, 1928, Abb 1.) (Pl. 20a). The series of holes at the crown of the cap possibly for some form of crest or knob may also be paralleled on this German helmet. The lines of decoration at the base of the cap across the forehead may also be compared to the layout of Coolus helmets described in chapter 2 (iv b).

Although the neckguard probably shows Roman influence, the Agen class of Celtic helmet is also relevant as several have decorative studs of red enamel. There is a difference, however, as the continental studs are not criss-crossed, but quartered and hatched alternately as a base for enamelling, illustrated for example on the pieces from Agen, Alésia and Vinji vrh noted in the preceding chapter. The similarity between these enamelled knobs and continental examples has however been stressed by Henry (1933, 81). The neckguard of

the last mentioned helmet is decorated in repoussé by a series of broken serpentines as well as enamel studs. The 'North of England' and Vinji vrh similarities appear to be unconnected manifestations of Celtic armourers influenced by Roman and by their own native types at about the same time. The decoration of the neckguard may be compared to that of the panel from Elmswell (E.R. Yorkshire) which Fox has likened to a 'graceful elongated form, like a breaking wave' (1946, 51). The central motif and the deep ribbed repoussé technique suggest that the date of 60 - 70 A.D. given to the panel by the associated material, may approximate to that of the helmet design as well. The decoration is also reminiscent of that of the Vinji vrh neckguard which has been described as a broken serpentine after Jacobsthal (1944, 70, PP. 124), and in Britain this is a feature of mirror ornament and of the decoration of harness mounts such as that from Polden Hill (Harford, 1803, pl. xxii, 1).

The mid-1st century A.D. parallels of Polden Hill are also relevant when the decoration of the side-piece is considered. The upper of the two enamel studs has formed the pupil of an olive shaped 'eye', and a similar motif can been seen on the Elmswell panel and the Tre'r Ceiri brooch, where it is made up of a number of circular berries. The Polden Hill mount, just mentioned, also contains this pattern, and it is unfortunate that a seemingly comparable strip from Stanwick, also decorated in repoussé, is too incomplete to envisage its complete artistic layout (MacGregor, 1962, 50, fig. 12, no. 98). From the same hoard the engraved plate no. 106, in the shape of an S-scroll has a similar scheme centred round three domes rather than two. Perhaps the

closest comparable decoration involving the linking of two roundels is to be found on an enamelled harness mount from Norton (Suffolk), the circles are of yellow enamel and the motif comparable to the helmet side piece is the raised bronze surrounded by a setting of red enamel. (Kemble, 1863, 195, pl. xix, 5). Remembering the trace of Roman ancestry in the helmet's shape, it is interesting to note almost identical decoration to the side-piece on a dolphin bronze from Tooley Street, London. Fox suggests that these objects are harness mounts and shows a convincing Roman prototype to the shape (1958, 130, pl. 75a and b), and as two such mounts were found in the Polden Hill hoard the chronological link between the dolphins and helmet decoration is not improbable. The Stanwick hoard is of mid-1st century A.D. date and the circumstances and connections inferred from some of the motifs used on the objects have been discussed in detail by Simpson; the possible context for the deposition of the hoard may form the historical background for the Roman shape and Celtic artistry of the helmet. Its manufacture in Brigantia is suggested by the comparative pieces already noted, and the story of the hoard's deposit may mirror the capture of the helmet by a Roman army, for this seems to be hinted at by the incised Roman numeral II on the dexter side of the helmet, which in itself is hardly conclusive evidence that the helmet belonged to an auxiliary or indeed that it was actually Roman as has sometimes been suggested. It is more likely that the number has to do with the preparation of a list of captured booty, perhaps for display in a trophy, or for display in, or presentation to, a temple.

Little can be said about the iron cheek-piece from the hill fort of Croft Ambrey (Herefordshire) (Pl. 34, below). Its

context and its iron manufacture suggest that it belonged to a martial rather than ritual piece. The decoration is rudimentary and unimformative, but the context is dateable within what the excavator, using Hawkes' scheme, describes as Western Third B of the 1st century A.D., and the piece is a useful reminder of the helmet of the ordinary chieftain. The length of the piece in relation to its width is the only unusual feature but this can be compared to the helmets shown on the limestone blocks, possibly the remains of a trophy of Augustan date, from La Brague, Antibes (Alpes-Maritimes) (Espérandieu, Recueil 1, no. 24) (Pl. 22, centre).

The horned helmet found in the Thames at Waterloo Bridge (Pl. 32) demands discussion from several points of view; its relationship with warrior helmets, its place in British Celtic art and its connection with the cult of horned heads. Several writers have noted that the helmet sits awkwardly on the head, although to suggest, as Fox does (1958, 49), that this serves to accentuate the vertical axis of the body is not very helpful. The thinness of the bronze sheets suggests that this is not a suitable battle weapon and there would seem to be no space on the inside for the essential padding although a number of holes near the rim may have served to attach a thin lining. It seems most probable that this is only a parade piece and it is also possible that it adorned the temple statue of a war god before its deposition in the river. None of the more warlike helmets with which the Waterloo Bridge piece may be compared have horns, but two which have the same bowl-shaped cap-piece and also a chin-strap ring have been found in the Rhineland, one from the Rhine at Mainz and the other from Böckweiler in the Saar; both helmets

are likely to date to the 1st century B.C. Helmets of the Coolus group with rounded cap and slight neck-guard seem to offer the best (though clearly tentative) continental parallels for the general shape of the cap. It is clearly difficult to decide which was the front and which the back of the Waterloo Bridge helmet but taking into account the European background of chapter 2 additional depth is almost always given to the back, to the neck-guard not to the peak. It is possible that the fact that the back is the better preserved has given this facet prominence. It may not be too subjective to suggest that the horns sit better when viewed from the more damaged side and that the pair of 'horn' curls on the helmet cap make better sense when seen from this side than from the back.

The most important aspect of any discussion of the Waterloo Bridge helmet is probably its place in British Celtic art and there are three main features of its decoration; the stalky repoussé tendrils, the areas of matted infilling and the binding strips and loops. The main decorative repoussé layout is surprisingly slight and, as Fox noted, depends for its effect on the blank spaces it leaves behind. There is also a free-hand asymmetry which contrasts with such earlier bronze work as the Torrs head-piece or the round Wandsworth shield boss and although the helmet follows the same artistic tradition as the latter piece, Fox's suggestion that the two objects come from the same atelier is clearly only tentative (Fox, 1958, 49).

There is a notion of 'pattern-book' pinned-on shapes in the decoration of the joints and spaces of the helmet ornament, and the same notion of patch-working is to be found on the enamel studs, which have been fixed on by central

rivets. This method of fixing the scored bronze sheet to the helmet with a rivet whose head forms an ornamental feature of the knob is seen by Henry to be a peculiarly English type of decoration (1933, 82).

The areas of matting-pattern on the three parts of the helmet have been listed in the catalogue description; the shapes themselves are crescents, 'voids' and trumpet motifs and all serve to fill a space or to emphasise a joint. The notion is not related to all-over background hatching of such pieces as the Standlake scabbard-mount, for the matting is less random than such hatching and the filled shape is itself the important feature; the technique is not employed to throw another pattern into relief. The comparable pieces have often been quoted and only the more important parallels need be noted here. From Snettisham Hoard E (Norfolk) both the electrum ring-terminal torc (with a gold ¼ stater of the Gaulish Atrebates concealed in the terminal) and the gold bracelet are important pieces from artistic and dating points of view (Clarke, 1954, 27 ff.), and an almost identical ring-terminal torc from Cairnmuir (Peeblesshire) associated inter alia with a number of Gallo-Belgic XB gold 'bullet' coins may also be mentioned. Allen suggests that the 'bullets' have their origin in the Marne, and in Gaul they are mostly earlier than Gallo-Belgic E coins which in Britain have a span between c. 65/60 - 45/40 B.C. The coin from the Snettisham torc, a Gallo-Belgic DC, is given a span between C. 90 - 55/50 B.C. The date of the deposition of the hoards is not the concern of this study, but the date for the incorporation of the coin into the Snettisham torc is presumably in the earlier half of the 1st century B.C. and a comparable date for the manufacture of the helmet is here adopted. The coin dates are taken from Allen (in Ed. Frere,

no date, (Cairnmuir), 104, 170 (Snettisham), 122-3, 160; OSSB 1962, Table 1). Apart from the chased matting, a distinct feature of the small 'nail' heads on these patterns is the tiny denting on them. This is present on the Waterloo Bridge piece and elsewhere only on the torc terminals already cited, and it seems likely that they form some of the major monuments of South-East English craftsmen.

The binding strips and the decorative U-shaped loops of the rim binding have not been the subject of much comment in the past, but there are in fact a number of informative parallels. A band of pseudo-rivets may be noted on the larger of the Lamberton Moor bowls (Berwickshire) (Curle, 1931-2, 363, no. 16), and there is a very similar strip from the Bredon Hill Fort (Gloucestershire) (Hencken, 1939, 67, fig. 4, 11); from the latter site come also a number of bronze U-binding loops with ribbed linear decoration (ibid., fig. 4, 2-4). A strengthening strip with one edge milled and counter-sunk rivet heads has surrounded the ceremonial head piece for a chariot-pony from the Torrs (Kirkcudbrightshire) (best seen in the photographs in Powell, 1966, 235, fig. 240). The terminal knobs on the horns are comparable, for example, to that on the Stanwick sword scabbard, and there is a whole range of knobbed horns on helmets from Gundestrup and Orange, and of course knob-horned beasts (Ross, 1967, 130). But such comparisons do not alter the long-held opinion that the helmet belongs to a South-East English school of craftsmanship.

It has sometimes been suggested that as the milled bending strips overlie the repoussé ornament of the helmet cap that the strips, and possibly the horns, do not form part of the original scheme. It is virtually impossible to be certain

on such points, particularly without the dismantling of the helmet into its constituent parts. Although the strips do overlie the ornament, the holes for the horns would not in themselves cross the pattern, for this may be projected without in fact impinging on the holes. It is impossible to imagine the forming of the front and back sheets of bronze into the cap without some form of projection on either side of the crown. Perhaps the original fixing of the horns was not acceptable and the joins had to be masked with the strips. The strip which seems to form the neck-guard may suggest that there is more than one period of workmanship, for it does not seem to belong to the original scheme, but at present it does not seem possible to elucidate this problem further.

The horned god in Britain has recently been studied in detail by Ross (1967, Chap. III), and the technique and decoration of two important horn pieces, the Cork horns and the Petrie Crown, have been examined by O'Kelly (1961). Ross has discussed the occurrence of dedications and the continental background, but there are no convincing votive pieces from Britain in her study that show distinctive horns springing from a helmet or headpiece.

The Waterloo Bridge helmet does not stand alone as a possible temple fitment, for the purely ritual nature of the two Irish pieces can hardly be doubted. The three horns from Cork have probably been fixed to a leather head piece - one horn upright at the crown, and the two other horns on either side of the head. The distance between the side horns is no more than 14cm. suggesting that as a helmet the head-piece would be a tight fit on the head of a warrior. Only one horn survives of the second Irish piece, known as the 'Petrie Crown', and this with an attached disc are supported on a frieze

of sheet bronze; a second frieze of bronze with a disc is still extant, but the horn which would be fixed to the back is missing. Without personal examination of these pieces it is naturally difficult to suggest any definite reconstruction, but the background bronze frieze appears to be without curvature, so that a circlet would be made up of a number of straight sides, and thus its 'crown' attribution can thus be only tentative. It is most likely, however, that the lines of holes which edge the sheets along both top and bottom have been used in sewing the bronzes onto a leather cap of some sort. A grotesque reconstruction of the 'crown' was published in Archaeologia in 1883 and this was later used by Muller, and mentioned by Déchelette. (Arch., xlvii (1883), 473 ff., fig. p. 475; Muller, 1905, 176, fig. 147; Déchelette, 1914, 1160n.) There is some difference of opinion about the date of the Cork and 'Petrie' fragments, but the birds with ribbed crests which decorate the latter, suggest a connection with the birds on dragonesque brooches currently given a floruit in the second quarter of the 2nd century A.D. (Stevenson in Ed. Rivet, 1966, 31). A stone sculpture from Ireland which may also be comparable is the figure from Tanderagee (Co. Armagh), about two feet in height, and protraying the upper half of the body with a large head and two rather sketchy arms and hands. Two horns protrude from the sides of the head, and although there is no attempt to represent hair, if the figure is supposed to be wearing a horned helmet, its rim merges into the pronounced eyebrow ridges (Ross, 1967, 146, pl. 46).

The most recent consideration of sanctuaries, temples and cult sites by Ross (1967, Chap. I) brings together most of our information about Celtic ritual structures and adds a

fascinating study of votive deposits. It seems possible that the Waterloo Bridge helmet and the Irish horns or crowns might be linked more with the adornment of temple statuary than with the battlefield. They might be seen to adorn wooden figures or posts representing a war god in the same way that the two twisted torcs from the temple or sanctuary site at Libenice (Bohemia) may originally have adorned two posts in the central area of the sanctuary (Rybova and Soudsky, 1962, 335, fig. 119). Wooden figures of this type are known in Britain and also from France, for example those from the source of the Seine recently published by Martin (1963). The Entremont and Roquepertuse sculpture in stone shows that temple statuary of the type suggested is not unknown and the helmet head from Entremont is a partucularly important example. It seems probable too that the ritual helmet from the museum at Rouen, discussed in the Appendix, may have adorned a wooden figure of some type.

The Aylesford handle-mount is another example of a horned or crested head and it seems that the knobbed horns are attached to a cap fitting on to the head, with what may possibly be a fringe underneath it, this motif may indicate a stitched binding, comparable to the helmeted head from Entremont and the Taranis figure from Corbridge. Possibly the most helpful illustration of the Aylesford mount is in Fox (1958, pl. 33a), and here the ribbed edge to the head piece, be this indicative of hair or binding, is clearly shown on the back and front of the face; Jacobsthal (1944, 24n.) may have been too cautious in dismissing the helmet idea which was suggested by Evans in the original publication, and there seems to be no other possible Belgic helmet. The helmet on the Taranis mould from Corbridge stands alone as an indication of

helmet style of the 3rd century A.D. and there is no evidence that this represents contemporary fashion.

It remains only to mention the bronze discs from Peterborough which Jope (Ed. Frere, no date, 82 n.) has suggested may be helmet fittings, and the complete set of bronze discs, found in 1882, is here illustrated for the first time (Pl. 35). The continental comparisons he notes seem rather unlikely and the discs could surely be reconstructed as a 'strap' crown like that from Hockwold-cum-Wilton (Norfolk), (Toynbee, 1963, no. 128, pl. 139), a rather closer geographical parallel. Although they do not come into the category of defensive weapons, it is interesting to remember that 'strap' helmets are known for example from Giubiasco (Ticino) Grave 330, a piece made in bronze, iron and wood and Gallo-Roman in date; such helmets employ a technique which is later found on the Anglo-Saxon helmet from Benty Grange (Derbyshire). Attention has already been drawn to the third helmet from Ormore Down of which only the crown-piece survived, but on it there were four loops which could convincingly be reconstructed into a strap helmet perhaps of this type.

It is unnecessary to list the animals that could be helmet mounts comparable to those found on the Gundestrup Cauldron or indeed the Benty Grange crest itself, but two boars from Hounslow (Middlesex) have found their way into helmet literature as crests (Fox, 1958, 76, pl. 53a); Piggott and Daniel (1951, nos. 66-7) are more cautious in their attribution. It should be remembered that not one helmet discussed has the four holes on the crown symmetrically disposed necessary to hold such a crest.

CHAPTER 5

BRITISH SHIELDS

The cardinal studies of British shields by Hemp (1928), Fox (1946) and Savory (1964, a and b; 1966) have all been occasioned by the finding of new evidence, the Moel Hiraddug, Llyn Cerrig Bach and Tal-y-llyn pieces respectively. Stead is also to examine British shields in his re-evaluation of the Grimthorpe finds and this is to be coupled with the publication of the St. Lawrence grave group. Almost without exception the shields have been discussed by these authors primarily from an artistic point of view, and several rather subjective typological schemes have been constructed from the inter-relationship of these pieces. The subject has been further complicated by the discussion of objects which do not appear in fact to be parts of shields, for it is all too easy to assume that a circular domed boss has belonged to a shield.

A number of pieces thus discredited are listed at the end of the catalogue, but there is no reason to suppose that future writers may not object to some of the shields included in, or omitted from, the catalogue. There has been no attempt here to reconstruct shields from a number of pieces of decorative bronze, such as those in the Balmaclellan hoard, or from the strip from St. Mawgan-in-Pyder, as it is not possible to be certain in either case exactly what object they represent. Thus, although eleven pieces are rejected, the resultant list will make for a more confident discussion of the shields or shield fragments included in the catalogue.

In 1928 Hemp suggested a development in the decoration of shields, based on the examination of the bronze work of

the boss and its lateral attachments and of the longitudinal strengthening rib (or spina). Fox (1946, 9, 91, fig. 5) divided the British shields broadly into two groups; those with circular bosses, for example Battersea, Wandsworth-Round and Polden Hill and this list which would now be extended to include, for example, Snailwell, and secondly, those shields with oval bosses. Some like Wandsworth-Long, Witham and Grimthorpe had a flat base which was attached throughout to the flat planking, and a bronze covering for the mid-rib (spina) while others, like Moel Hiraddug and Llyn Cerrig Bach, were arched so that part of the wooden boss beneath must have been visible.

This basic division, which has up to now been used in any discussion of British shields, has been founded on a study of the British pieces alone without consideration of the continental background, and this division was tacitly accepted by Simpson (1966, p. 165). In fact, from the examination of the continental shields, in Chapter 3 it became clear that the main types were (1) the shields with simple spina (2) shields with spina and strip boss and (3) shields with circular bosses. It seems most likely that this general division can be employed to advantage in Britain too.

Most of the shields listed by Fox as possessing oval bosses, namely Wandsworth-Long, Grimthorpe, Moel Hiraddug and Llyn Cerrig Bach, show the transformation of the simple strip-and-spina boss to an elaborate facade to the planking of the shield. Appliqué bronze decoration is employed in this way only in Britain. Thus the continental strip-boss is not absent from Britain, and, with a number or original additions, it is implicit in the shields from Tal-y-llyn, Moel Hiraddug, Owslebury, Stanfordbury (and of course from

Catioroc and on the Ribchester memorial slab). This interpretation becomes especially clear in the examination of the Owslebury and Tal-y-llyn pieces.

In this chapter the same initial division is to be employed in the discussion of the British pieces, as was used for the continental shields. However the decorative features of many of the British shields are so totally different from the continental material that it would be wrong to rely on the continental terminology as a matter of principle.

The shield bosses and shields that form the basis of this study come from seventeen sites; eight belong to a group more or less allied to the strip-bosses of the previous chapter, namely Catioroc, Grimthorpe, Llyn Cerrig Bach, Moel Hiraddug, Owslebury, St. Lawrence, Stanfordbury, and Tal-y-llyn; three of these come from deposits or hoards of metalwork in North Wales (Llyn Cerrig Bach, Moel Hiraddug and Tal-y-llyn) and the other five were discovered in burial deposits. The dates of the objects from the hoards and the votive deposit must be examined without the confidence of the closed context of the graves. The approximate dates of the burials may be mentioned here with some confidence; Catioroc, Owslebury and St. Lawrence seem to be extended inhumations associated with objects of 1st century B.C. to early 1st century A.D. date, whilst Stanfordbury can be dated approximately to the time of the Roman conquest of S.E. England in 43 A.D. The Grimthorpe burial is certainly the earliest in this group, and, though its date is the subject of some discussion, a 1st century B.C. date is usually accepted (Stead, 1965, 83f.; Simpson, 1966, p. 165).

Round shield bosses will be examined in two groups; the richly ornamented pieces found in contexts suggesting

votive deposits, and the practical battle shields found in hoards of metal-work, and in one case, Snailwell with a burial. It is proposed to exclude at this stage the two Scottish examples, which are discussed, along with the evidence shown on the Antonine Wall distance-slabs, in Chapter 6, for they are perhaps more useful as corroborative evidence of the shields shown on the slabs, than of interest in themselves. Three shields seem more suited for display or for votive purposes than for use on the battle-field; they are the Battersea, Wandsworth-Round and Witham shields, and as all were found in rivers, it is most likely that they were deposited ritually and not lost casually, or even as the result of 'some sanguinary conflict.... between the Celtae and the Romans, where the new bridge spans the Thames', as the original publication of the Battersea shield suggests (Cuming 1858, 330). The Wandsworth-Long shield is by its context and decoration linked firmly to this group.

Strip-Bosses

It is interesting to examine the various strip-bosses in the light of the articles written at the time of discovery. The first is Hemp's contribution in 1928 on the shield from Moel Hiraddug, and it is considered here along with the Stanfordbury boss. Fox's examination in 1946, in the Llyn Cerrig Bach report of the evidence for Iron Age shields, may now be linked to Savory's many contributions between 1964 and 1966 on the Tal-y-llyn finds.

In 1928 Hemp conducted the first discussion of British shields and in his examination of the European background he was able to employ the works of Déchelette, Jahn, Coussin and Vouga for the first time in a discussion of the

British pieces. The strip-boss and spina, from which the Moel Hiraddug shield is derived, could be illustrated by the shields from La Tène, in a way that had not previously been possible. From the strip-boss and spina of continental shields, Hemp envisaged a typological sequence, which is very reminiscent of the sequence from flanged-to-winged-to-socketed-axes. The sides of the strip grow into crescentic wings and finally envelop the boss completely to form the circular boss of the Battersea type. He took the Moel Hiraddug and Wandsworth-Round shields to be the first generation derived from the continental type, and the Wandsworth-Long and Witham shields were seen as contemporary in date but stylistically one remove further from their continental origins. After Moel Hiraddug the next piece in the sequence was Grimthorpe, and then Battersea, evolved in the way described above. Hemp suggested that the 2nd century B.C., or rather later, was a suitable date for the Moel Hiraddug shield on the continental evidence. Hemp's views have been examined in some detail, because his is probably the most reasoned statement on the background of the British shield material (not really superseded by Fox in 1946), and it is this background that is here being reviewed again forty years later. Hemp's use of continental dating ideas is also interesting, but his definite genealogical table may oversimplify the situation.

Clearly linked to the Moel Hiraddug shield are the two other Welsh pieces, Llyn Cerrig Bach and Tal-y-llyn, as well as the Grimthorpe example from Yorkshire. In Fox's discussion of the Llyn Cerrig boss, he accepted it as a more advanced example of the Moel Hiraddug shield; advanced because 'the aesthetic unity of boss and ribs is complete and the breadth

of the lateral attachments has been greatly diminished' and for this reason Fox suggested that it should be later in date (1946, 9f.). Although from the point of view of typology it is easy to see the genesis of this argument, the much later date now accepted for the Moel Hiraddug shield makes it important to examine the ornament of the Llyn Cerrig boss itself and the general chronological limits of the votive deposits in which it was discovered. Savory has recently suggested, however, that the shape of the Tal-y-llyn bosses should make them earlier than both Llyn Cerrig and Moel Hiraddug (1964, 454f.), and he suggests that Tal-y-llyn may be early 3rd century B.C. in date. As the priority of Tal-y-llyn is here accepted, it is the first to be examined in detail, then Llyn Cerrig Bach, Grimthorpe and Moel Hiraddug in that order.

British Iron Age metal work seems so completely sui generis that Savory's searching for continental parallels for motifs may not be very meaningful. The Tal-y-llyn bosses (Pls. 44 and 45) are clearly akin to continental strip-bosses, but again even his tentative similarities to shields 'in Italy and Carniola' rather cloud the issue. The first shield is reconstructed as a strip boss with flanking crescentic plaques and bronze sheathing covering a wooden spina. But it should be noted that he says that 'it is possible that the ribs belong to the second shield-boss rather than the first.....but there is little doubt that the first shield originally had similar ribs, which in this case would be missing from the hoard' (Savory, 1964, 452; 1966, 102). Only two fragments of the boss survive of the second shield, unless, or course, the ribs belong to this one. The thin copper alloy of Boss 1

has a central hole surrounded by a stain showing where there has been a decorative stud; outside this there is an embossed triscele, itself bounded by a circle composed of two grooves, with, inside, a line of decoration worked with a tracer tool rocked from side to side and, outside, a frieze of triangles. A similar line of decoration has divided the strip-boss from the spina sheathing. The triscele also forms the most important decorative motif of the best preserved of the flanking plaques, both of which are, in fact, fragmentary. Here, however, the triscele is left plain, and the background is filled with rocked-tracer cross-hatching, both inside and round the perimeter of the motif. Again there has been a central stud, and round the edge of the plaques there is a chequer and a chevron pattern. The second boss, which has been repaired, is also a strip-boss and is decorated with an embossed roundel containing a dividing S-scroll (possibly half a lyre pattern) with a smaller embossed figure-of-eight at its side, and together they create a 'Llyn Cerrig void'. To link this fragmentary piece to motifs found at Kósd, Münsingen, Deisswill, Manching does not add very much (Savory, 1964, 461).

Continental analogies to the shape of the boss do not really help, for the strip-boss, current from the 3rd century B.C., and spinae, visible for example in the Hjortspring pieces of about this date, continue to be used in shield manufacture till the 1st century B.C. Although the basic form is related, as Savory notes, to Middle La Tène types, this is no real criterion of date. The triscele motifs and the rocked-tracer technique form a rather more reliable guide. There seems to be some evidence to assign the use of a rocked-tracer in this

way to an early date and the Standlake scabbard-locket, the Wisbech Museum and Minster Ditch swords contain examples of the use of this technique at an early date. The Llyn Cerrig Bach boss also uses a tracer in a zig-zag style but in conjunction with lines of dots to create two pairs of trisceles in an altogether freer style.

Savory in seeking parallels for the triscele motif looked to the Clevedon torc terminal, but it is difficult to prove the early date of Tal-y-llyn by using this piece, which has itself to be up-dated so violently to be comparable with his date for the shield. The torc remains more closely linked to the Waterloo Bridge helmet and the Snettisham bracelet. It is rather unfair to use Fox's dating uncorrected in the light of coin studies, and then to complain that the later 1st century B.C. is too late (Savory, 1964, 458). It does seem possible, however, that the motif has developed from the triangular joint of such pieces as the Brentford horn-cap, in the same way as the loop and spirals have formed on the Torrs head-piece. The mushroom coils with knobbed terminals of the Torrs piece, linked as they are with the Turoe or Castle Strange stones for example, possibly of 3rd century B.C. date, form a more convincing background. In fitting the knobbed triangular joint from, for example, the helmets from Amfreville or Tronoën into a circle, a triscele of Tal-y-llyn type might eventually emerge. But there is perhaps no need to envisage so early a date as the 3rd century B.C. for the manufacture of the shield, for it is closely linked to the Llyn Cerrig deposit and indeed to Grimthorpe. There is even an incipient 'Llyn Cerrig void' on shield boss No. 2, and it should be clear, that given the circular central knobs of Boss 1,

the central triscele is made up of three 'Llyn Cerrig voids' ranged round the central head. It is also clear that, outside the various trisceles, there is also a form of void with the convex head (forming part of the perimeter of the surrounding circle) and a curling tail twined into the triscele terminals themselves. This motif is also present round the four trisceles of the composite discs (Savory, 1964, pl. vi, fig. 7). From these similarities it seems possible to argue a 2nd century date at least for these pieces; a much later date, perhaps in the 1st century A.D. for the deposition of the hoard does not seem to be disputed (Savory, 1966, 103). The metallurgical evidence of these pieces fully discussed by Savory and Spratling may also suggest a later date, but it seems at best, that such information is susceptible of interpretation to support either argument.

Basically the Llyn Cerrig bronze boss (Pl. 40) covers an almost circular wooden one with a symbolic spina extending above and below it. With the relegation of Moel Hiraddug to a later date it is not possible to see Llyn Cerrig as a derivation from this primary shape (Fox, 1946, 10). The material from the deposit is normally taken to span the mid 2nd century B.C. to the mid 1st A.D., and to represent an accumulation of offerings thrown into a mountain pool, and Fox's publication of the various pieces discovered stands as a landmark in the presentation of British Celtic art (1946). Although it may seem arbitrary to prefer the earlier date, it appears that the Tal-y-llyn trisceles could be seen as immediate fore-runners of the decoration of the Llyn Cerrig plaque. The small fan-like voids, already noted on the former pieces around the central knobs, fill out to become more important than the three-lobed motif and create the gamma swirl of the Llyn Cerrig

crescentic plaque - in this case with lobed trumpet terminals. Indeed the lowest lobe here may be compared to the Brentford or Amfreville curls or 'locken motif' (Jacobsthal, 1944, PP 131), an idea which is perhaps also behind the Tal-y-llyn triscele. It is possible to accept a 2nd century B.C. date for both shields, although it is clear that the evidence for a firm dating is not very good.

The Llyn Cerrig Bach shield boss, which has protected a simple, almost circular wooden hand-grip cover, is thus rather different from the Tal-y-llyn pieces. The spina plays no part, and the attachment flanges are small and unimportant. The two pairs of trisceles enclosed in thin S-scrolls, on either side of the slight central ridge of the boss. This fine ornament, like much of the incised decoration on these shields, would be almost invisible from a distance, and its purpose must be either the personal satisfaction of the craftsman or some religious or magic significance for the warrior. Perhaps the fine tooling would be used as a key for colour, but it seems hardly deep enough for this. The decoration shares the pedigree already suggested for the plaque, but it is less restricted and less regular than on this piece. The use of the tracer technique to form this design has already been noted in connection with the Tal-y-llyn shield fragments, and one further link may be noted but it is not pressed. One of Fox's most percipient distinctions was between positive and negative ways of using the same ornamental detail, and in discussing the triquetra voids of the Llyn Cerrig plaque he notes that Early Celtic parallels to the void as a positive element were not uncommon but that the British use of the void in a negative way showed that the Llyn Cerrig plaque indicated a fresh start

(1946, 49). It is possible that both forms are to be found on Tal-y-llyn - more positive on the flanking crescents, negative on the two bosses. A similarity between the techniques of the Tal-y-llyn and Llyn Cerrig trisceles that has not previously been noted is the outlining of the traced filling with incisions. This is clear on Fox's drawing of the latter piece, but it is much more frequent on the former than Savory's illustration shows, and on this piece an incised outline has formed the base from which the tracing tool has been employed.

This is a discussion only of the shield components of these two most important finds and of some artistically allied pieces: it is not therefore possible to include, for example, the trapezoid pieces or the four discs from Tal-y-llyn, or the chariot parts, or the Irish trumpet from Llyn Cerrig Bach, that are in themselves as interesting as the shields.

In Fox's scheme in 1946 he envisaged the decoration of the Bugthorpe scabbard as coming between the triquetral forms of the Llyn Cerrig plaque and shield boss. While such linear development of motifs is, of course, rather dangerous when only a small proportion of such pieces can have survived, it is a suitable reminder of the close connection between the pieces from North Wales and a number from Yorkshire; the Grimthorpe shield and sword and the Bugthorpe sword particularly. These belong to the group of Yorkshire burials of the Western Wolds recently re-examined by Stead (1965, 67ff.).

Several objects found in Yorkshire that were originally described as shields or shield bosses, have proved, on further examination, to have been wrongly identified, and it maybe stressed again that the pieces from the Charioteer's Barrow,

Arras, Humanby and Stanwick are not now considered to be shields. Stead's suggestions that the small bronze discs from Bugthorpe and Grimthorpe may have decorated a shield lacks conviction (Hemp, 1928, 278; Stead, 1965, 69). In the same way, the U-shaped fragments from North Grimston and the possible spina sheathing from Eastburn are no more than interesting corroboration for the Grimthorpe shield; for, found without this evidence, they would not have been considered worthy of inclusion. Both pieces were found in graves with other warrior equipment, but in the same way that the Blackburn Mill and Carlingwark fragments are most useful in providing the comparative material for the distance-slab shields, these two Yorkshire graves do no more than suggest that shields of Grimthorpe type, perhaps with fewer bronze fittings, were much more common than the archaeological record now shows.

The shape of the Grimthorpe shield relates it quite firmly to the North Welsh series just discussed (Pl. 38); Tal-y-llyn and Llyn Cerrig preceding it in date, and Moel Hiraddug will be examined as its chronological successor. The inhumation burial, with which the shield was associated, belongs to a group found during chalk digging and excavated by Mortimer between 1868 and 1871. The warrior burial had been deposited in an oval grave some 1m. 37cm. in length and dug to a depth of 1m. 22cm. into the chalk. Since Grimthorpe is the most fully documented warrior burial in Britain, it is appropriate to examine this assemblage closely. Lying on the breast of the young man were the three bronze ornamental pieces of the shield, and underneath these was a considerable quantity of iron oxide in the form of a rusty substance, as well as decayed wood and leather. The excavator suggested, very sensibly, that these

are the remains of 'some portion of the inner side of the shield' (Mortimer, 1905, 105), and it is possible that not only has there been a wooden planking to the shield but that this has been covered with leather before the addition of the bronze decorative plaques (a technique now also recorded at Owslebury). The hand-grip has presumably been of iron. The two bronze half-tubes, which are here taken to be spina covers, rather than an ornament for a spear shaft, were found at the head and at the knees of the skeleton, but as the body was crouched, this is less useful in indicating the length of the shield than might at first appear. These various components do, however, appear to be in correct relationship to one another, and thus the position in the grave of the bronze ornamental disc which Stead suggests may have formed part of the shield is crucial. The disc and two small bronze studs, each about 1.3cm. in diameter, were found 'about the chest and shoulders' of the body. This is too close to the centre of the shield to support Hemp's notion that the disc was originally at the outer tip of the central spina (1928, fig. 11); indeed the discovery of such a decorative disc and studs at the chest and shoulders of the warrior is more consistent with a cuirasse or tunic.

Other arms in the grave included an iron sword with bronze scabbard-fittings at the left side of the skeleton, under the shield, and the hilt near the head. Six or eight bone points were found along the top of the burial, a further line of points along the length of the skeleton and others within the filling; there were sixteen points in all. An iron spear head with a split socket was found beside the sword on the left side of the body. The sword belongs to Piggott's group III and may be considered along with the sword at Bugthorpe, only

three and a half miles to the N.W. Stead, in his analysis of these swords, although suggesting a correct date-span, describes the Llyn Cerrig Bach finds as a hoard that is dated by a La Tène III scabbard-mount; but surely a votive deposit accumulated over a period of time cannot be dated by a single piece. The derivation of the Group III swords from their Group II predecessors gives a date in the later 2nd century for the beginning of this type, and on typological grounds an early date in this sequence is most likely for Grimthorpe. Fox linked the Bugthorpe scabbard decoration to the art of the Llyn Cerrig plaque (1946, 53f.), and Simpson has linked the ornament to the style of the gold bracelet from Snettisham, Hoard E, which is dated to the first half of the 1st century B.C., with a span of 90 - 55/50 B.C. for the coin enclosed in the associated torc. The hatched motif on the upper bridge of the Grimthorpe chape is identical to the terminals on the Bugthorpe scabbard-decoration, and the incipient lips at the tip of the former, contrast with the pursed lips of the latter and indeed all the other members of the Group. An unusual feature of the Grimthorpe chape was the infilling of six hollows with small rubies, by means of small rivets passing through their centres, although these were all absent but one; the link with the Bugthorpe discs is inevitable for, on these, the studs of enamel are riveted on to the bronze back-ground (Stead, 1965, 70, fig. 36, 2 and 3). The Grimthorpe sword would most certainly appear to be early in the Group III sequence, and a late 2nd, or perhaps more likely, a first half of the 1st century B.C. date for the burial would seem to satisfy such a condition (Piggott, 1950, 12ff.).

This similarity between the aristocratic metal-work of North Wales and the Western Wolds of Yorkshire can also be shown

by the similarities of the horse-trappings or chariot accessories in the two areas; nave-hoops, linch-pins and terrets all stress the connections between the areas (Fox, 1946, 13f., 19f., 35f; Stead 1965, 32f.). Although in Yorkshire the two groups appear to have been exclusive; with the sword burials intrusive into an area of chariot graves, a tradition that was established perhaps from the 3rd century B.C., the contacts of both group with Wales may be clearly shown. It remains only to consider whether the intrusive warrior group could itself have originated from North Wales. In seeking parallels for the sword burials of the Western Wolds, Stead looked to Shouldham, Norfolk (1965, 68), but the Welsh warrior burials at Ogmore Down and Gelliniog Wen, though both probably rather later than Grimthorpe, may also be worthy of consideration. It has been suggested that the swords 'seem to be intermediate, typologically, between those of central and southern England on the one hand and specimens in North Britain on the other' (Stead, 1965, 69), and such striking prototypes in the Hunsbury swords for the Group III pieces may over-shadow the similarity between the shields from Grimthorpe and those from North Wales. The boss from Stanfordbury, which belonged to a shield of this type, is known only twenty-five miles away from Hunsbury, though at a later date. Stead's tentative suggestion that the warriors have been displaced from Lincolnshire and even East Anglia circa 100 B.C., remains perhaps the most plausible solution, although a rather more southern focus is also possible; the Stanfordbury boss is a reminder, however, that this type of shield was also to be found in the hands of one of the Belgic invaders who may have displaced the Yorkshire Wold warriors themselves.

The bronze pieces from Moel Hiraddug were discovered near the bottom of the rock-cut ditch, covered by the debris of the collapsed rampart, 'strongly impregnated with red iron ore'. It seems less likely that this deposit is due to loss in the course of an attack, as Hemp suggests, than to the concealing of a hoard of metal-work, and the iron ore may represent a greater number of swords or iron pieces than the fragments already recorded. The hoard may thus be comparable to the Tal-y-llyn find, also from North Wales, but it is also possible that it may represent a warrior burial although the skeleton has vanished. The position of the find-spot and its possible relationship to the construction and destruction of the hill-fort are discussed by Houlder (1961, 6ff.).

There is some difference of opinion about the earliest strip-bosses, and Stead suggests virtual chronological parity for all but Moel Hiraddug and Stanfordbury. The lay-out of the Tal-y-llyn and Moel Hiraddug shields are identical, and for this reason they may be thought to be close in date. According to Hemp's reasoning, the simplicity of the boss-and-spina, and the pelta flanking-piece might be thought to suggest an early date (Pl. 41, above). The ridge which divides the strip-boss from the spina is a clear indication that the simple strip-boss is not yet forgotten; but is this a sure sign that the piece is early? The shield clutched by a cowering barbarian, shown on the stele from Ribchester, has a clear strip-boss and spina yet it dates to circa 100 A.D. and is evidence that an early date is by no means inevitable for this shield type (Pl. 56, below right).

The problem of the four or five concave-sided objects from Moel Hiraddug remains unsolved. The square plate with a

triscele decoration, enclosed in a circle and springing from a central rivet hole, introduces a motif that is an important one for the Welsh shields, and it will be discussed in some detail later. Alcock (1963, 23, pl. iii) notes that the triscele with recurving arms is present at an early period in insular British Celtic art, and he would assign this piece, (and indeed the whole assemblage from Moel Hiraddug) to an early date, prior indeed to the majority of the Llyn Cerrig Bach decorative motifs. There seems no reason to agree with this, for the acute analysis of the ornament by Leeds (1933, 56f.) places the broken-backed scrolls in the late 1st century B.C. and 1st century A.D., and this date is confirmed by Simpson (1966, p. 166). Thus an artistic date for the triscele from Moel Hiraddug provides a similar chronological context to that of the comparable shield from Stanfordbury. It must be stressed again that there is no conclusive evidence that the Moel Hiraddug pieces were 'lost in action' (Alcock 1963, 14). The circumstances suggest the deliberate burying of the pieces, either as a hoard of metal-work, not necessarily related in function, or possibly accompanying a burial, no traces of which survived.

The finds from the Stanfordbury A vault include a boss, that has almost certainly belonged to a shield of similar type and the burial vault dates to about the time of the Claudian invasion in 43 A.D. (Stead, 1967, 47). Although badly damaged, enough of the Stanfordbury boss remains to show that there is an arched central portion under which the ribs of a wooden spina have extended (Pl. 43, below). Moel Hiraddug and Stanfordbury have possessed a central decoration, and on the Stanfordbury boss the hole and stain suggest that there has

been a decorated broad-headed stud. It is not certain whether there was a decorative filling in the central ringed hollow of the Moel Hiraddug boss.

The Stanfordbury boss was published as an elbow piece of scale armour before its real purpose was recognised by Lethbridge (1954, 29). The bronze has the shape not only of the hump of the wooden boss beneath it but also the curving sides, and one of the interesting features of this shield is that although it was buried with a native chieftain of some economic importance, it is clearly comparable to that held by the barbarian on the Roman grave stele from Ribchester discussed in Chapter 6. It belongs to the long oval type of shield, made either of wood alone or of planking covered with leather with a wooden spina and a central boss, in turn protected by the metal strip-boss. Three other shields may be studied along with this group; those from Owslebury, St. Lawrence and Catioroc, all from the English Channel area and all found in graves. The shield from Owslebury is as yet unpublished, and any comments on its similarities and context must of necessity be rather tentative; it will however prove an important addition to the evidence of shield styles in Southern Britain. It was found with the extended inhumation of a warrior in a chalk-cut grave and was associated with a La Tène III sword, a spear and a belt hook with two attachment rings (Pl. 41, below). Collis suggests that from its position in the cemetery the burial is of 1st century B.C. date and the La Tène III sword might seem to be confirmation of this.

The shield is made up of an arched strip-boss, beyond which has extended a spina in the style both of Moel Hiraddug and Stanfordbury. The skeuomorphic ridge on the former piece and the beaten ridge on the latter may be paralleled on the

Owslebury shield not only on the boss itself but also by the pair of crescent terminals to the wooden spina. The butterfly terminals to the strip boss might be likened to the pelta side decoration on the Moel Hiraddug shield. A unique feature of the Owslebury shield is the conical centre of the boss but unfortunately this is not visible on the published illustration. The only comparable shields from Britain appear to be the round dome-shaped bosses from Hunsbury with a short central spike, but the round conical bosses from Snailwell and Polden Hill may incorporate a similar idea. Examination of the shield is not yet complete, but fragments of wooden strips, possibly covered with leather, have formed the planking base of the shield and this indicates that the make-up of the Kasim el Harit shield may now be compared with this British example, as well as with the Grimthorpe burial, where decayed wood and leather was also recorded.

The iron boss and rim fragments of the St. Lawrence shield were associated along with a La Tène III sword; the boss, which is spindle-shaped with its central expansion covering the hand-grip has a small decorative knob, and the spindle tips form a short spina, no doubt originally covering a wooden mid-rib. The particular interest of this piece is that it brings startling confirmation of the shield shown on the Roman stele from Wroxeter. The sword and shield are as yet unpublished, and mention of the pieces is due to the kindness of Dr. Stead; as the sword is a La Tène III piece, the burial would seem to date to the 1st century B.C. or possibly the 1st century A.D. It is interesting to reflect that there is no British representation of the simple strip-boss on any of the British stelai and that the spina seems to have been an

important structural feature of elaborately decorated and practical shields alike.

The Guernsey shield-boss from the Catioroc cist takes its place clearly among the strip-boss shields already discussed from France, but the sword hilt-guard of cocked-hat derivation found associated with it, is almost certainly of British inspiration. The strip-boss has much in common with the Stanfordbury pieces, with its curved sides and ribbed edges, but beyond this little more can be said. Both St. Lawrence and Catioroc are reminders of how few of such La Tène III flat graves with material of any interest have been found in Britain, and the Ogmore Down cemetery has already been linked to this small group.

Circular Bosses

(a) Parade Shields

The shields from the River Thames at Battersea and from the River Witham adjacent to Lincoln are most outstanding examples essentially for display, either on a military or perhaps a religious parade. Both are complete shields but with them must be considered the two bosses from the Thames at Wandsworth, linked not only by the style of their rich decoration but also by their final votive committal to the waters of the river. There seems, however, to be no specific connection between the gods of war and water; it may be supposed that deposit in this manner was thought to be a way of direct communication with the various deities.

It is very important to remember, when discussing the Witham shield (Pls. 48 and 49), that there are in fact two periods of work represented on it; in the earlier phase the slightly bevelled shield was emblazoned with an appliqué boar

as the warrior's heraldic device, disposed round a simple, presumably circular boss, but in the later phase the same base was flattened and ornamented with an elaborately cast spina and boss. The suggestion that the boss on the boar shield must be round is an important one; no other boss shape would seem to be possible, for a strip-boss would cover too much of the face of the shield and overlap the boar. The shape of the shield itself is important and its long parallel sides and rounded ends are reminiscent of the Hjortspring series of long shields and the Vadebrø shield. It could even be compared with the rather more angular shields, again all with round bosses, on the Gundestrup cauldron, on the well known plate which shows a warrior procession. The Hjortspring deposit is dated to about the 3rd century B.C., and the Gundestrup bowl was probably manufactured in the Middle Danube about 100 B.C. or even earlier, though there is no evidence to date its burial in Denmark. The most appropriate date for the Witham shield and possibly for the appliqué boar too seems to be in the 2nd century B.C. Although the animal's elongated form may owe something to the surface it was to adorn, its long spindly legs and weak ankle joints find close parallels in the Gundestrup animals. The legal obligation in the Ulster tales that each warrior should have a different device on his shield has been discussed recently in the context of the Withan boar by Sandars, who vividly re-tells the story of the smith's difficulty of thinking of a device for Cú Chulainn (1968, 264).

The most common Celtic way of portraying the boar is by stressing the feral mane and by emphasizing the snout and the tusks; such examples as the bones from Euffigneix (Haute

Marne), Gutenberg (Lichtenstein) and Metz (Lorraine) show this clearly,while the curly tail present on the Witham piece can be compared to a small boar from the Aveyron at Landonesq, (Drack ,1954-55, Taf. 61). The Witham animal does not even seem to have had a mane, for, although only known in outline, the body is too thin for a mane to have been portrayed. A most illuminating study of boar iconography forms part of Ross's recent chapter on Divine Animals (1967, 308ff.).

The relationship of the two Wandsworth bosses and the Witham shield and scabbard-mount has been fully discussed by Atkinson and Piggott (1955, 227ff.) in their examination of the Torrs finds, and the two phases of the Wandsworth-Witham-Torrs objects were distinguished for the first time; Newnham-Torrs being the earliest and Witham-Wandsworth rather later. It would be superfluous to cover this ground again, and the most important artistic affirmities of these pieces have been noted more than once. The circular theme of the repoussé decoration of the Torrs head-piece, dated to the later half of the 3rd century B.C., has already been linked to the Wandsworth-Round boss (Pls. 46 and 47, above) whose ornament, apart from the incised motifs in the bodies of the birds, is symmetrical on a cross axis (Powell, 1966, 234). The boss and spina, also from the Wandsworth reach of the Thames (Wandsworth-Long) and discovered at the same time as that already noted, had also been intended to cover a round wooden boss, hollowed behind to contain the hand-grip (Pl. 47, below). The openings behind the Round and Long bosses measure 8.9 and 9.7cm. respectively, and thus neither provides much room for the wooden interior as well as for a hand of normal size. The birds' heads of the flange of the round boss from Wandsworth are transposed onto

the raised boss of the longer piece and are shown more realistically with dominant eyes and up-turned beaks. The 'wavy crest' or 'crimped' pattern on the diagonal rib between the ducks is comparable not only to the annular rib surrounding the other Wandsworth boss, but it is also present on the Witham shield itself, surrounding the terminal roundels at either end of the elaborately cast spina. Only one rib of the Wandsworth spina survives complete with terminal face.

The cast Witham boss and spina, almost identical in concept to the Wandsworth-Long boss, is, of course, on a larger and more impressive scale. The pattern is more formalised however, and centres on a rosette of three red glass studs riveted in position, a technique also found on the Grimthorpe chape. The heads and necks of the ducks have been transformed into a simple circular loop with triangular bodies, and heads are rather reminiscent of those of the Wandsworth bosses. A half leaf points along the spina, a feature also found on the Wandsworth-Long Boss, but the heads at the end of the rib stress the originality of the artist, for these lively 'horse-masks' are in marked contrast to the morose face at the terminal of the Wandsworth spina. The terminal roundels within their crimped border again demonstrate the connections between Witham and the Wandsworth bosses.

Horse-masks and rather fugitive faces are important points of focus on the most magnificent of all the pieces of Celtic weaponry from Britain, the shield from the River Thames at Battersea (Pls. 36 and 37). The masks are as clearly related to the Witham spina, as the faces are to Wandsworth-Long, and this is a suitable opportunity for noting one of the most fascinating of Celtic attitudes to weapons recorded by Ross

(1967, 364f.). The belief that some spirit was within the weapon itself is strikingly brought out by the faces looking from these shields, while those on the central roundel of the Battersea piece are perhaps the most impressive of all. It is important to remember too that these four shields may have been on display in a temple before being thrown into the rivers, perhaps as an invocation.

The small symbolic shields are also relevant as they show the direct plea for efficiency and protection for the supplicant's own weapons. In this context, too, the trapezoid plaque from the Tal-y-llyn hoard and a number of pieces from the Stanwick hoard may be mentioned (Savory, 1964, 461 f., pl. v, fig. 6; McGregor, 1962, 33, nos. 103-4). Such pairs of bronze applied decoration are perhaps more suitable for attachment to something larger than a shield, and chariot decoration with the additional function of averting the 'evil-eye', has more than once been suggested. The ducks on both Wandsworth shields may be linked to other birds on military pieces, although in several cases these are cranes or long-legged water-birds and such water-birds are surely connected with the eventual fate of the votive weapons themselves.

(b) Battle Shields

The ritual pieces of the last section all have circular bosses and naturally form the important introduction for the final series of shield bosses from Britain - the practical shields with round bosses. Round conical shield bosses with flat circular flanges have been found at two British sites from native contexts; Snailwell (Norfolk) and Polden Hill (Somerset). Round bosses with a dome rather than a conical centre have been discovered in the Hunsbury hill fort

(Northamptonshire) and these are illustrated here for the first time. A strong spike sticks out from the centre of the dome making them very dangerous battle weapons. Two further round bosses of a practical nature may be noted in passing, - these from Blackburn Mill and Carlingwark, Scottish examples which may well owe their origin to this group.

At Snailwell, the cremation of a Belgic chieftain had been deposited in a pit with some sort of wooden construction built within it forming possibly some sort of litter. Between this and the pit wall were food offerings of pork, ox and poultry, imported amphorae and other vessels, and two pots of local manufacture. The iron boss is circular, with a flat collar to join the metal piece to the wood or leather of the shield and the conical boss rises from a low drum (Pl. 43, above). There are no rivet holes in the surrounding flange, and this presupposes the use of broad-headed rivets hammered in just outside the boss so that the heads of the rivets overlap the flange; a feature suggested by the umbo from Simbelgård, Grave II (Bornholm) (Klindt-Jensen, 1950, 48, fig. 19a). As there was no sign of the shield itself and as no grip or fittings remain, Lethbridge suggested that the boss had been detached from the shield before the burial. The pottery from the site is not the immediate concern of this study, but it does illustrate, with its mixture of imported Gaulish ware and Belgic native ware, (e.g. the tazza and grooved bowl), the almost cosmopolitan state of Belgic culture just before and just after the Claudian invasion of 43 A.D. (Birchall 1965, 225). Moreover, it forms a helpful background to a consideration of the relationship of two more interesting pieces from the burial - the bronze armlet and bowl.

The bronze bowl, which is lathe finished (the chuck impression is visible in Lethbridge, 1954, pl. viib, incorporated into the design on the inside of the base) belongs to a class that has been considered several times in recent years, (Piggott and Atkinson, 1955, 231; Lady Fox, 1961, 186; Megaw, 1963, 27; and Simpson, 1966, p. 368). The closest parallel for this bowl is the smaller bowl from Stanwick (MacGregor, 1962, no. 121) which has an undecorated flat rim. The sunk turned base is decorated with a small central curling Maltese cross motif bounded by a turned line. This curling cross may be compared to a rosette of one of the studs of the mail from Stanwick (ibid. no. 118). A circle of chevrons completes this essentially non-Celtic repertoire, and a series of circles has been turned on the outside of the base.

The lathe finish may be linked with the ornamentation on the back of the bronze armlet. The double wavy line which runs down the back of the ram's head armlet has already been brought into the discussion of such bronze bowls (Megaw, 1963, 30). The double band appears on the Rose Ash bowl, and a single band of such decoration has been punched on the Keshcerrigan bowl, the Birdlip brooch, the Welwyn Bronze tub and the Snettisham torc. The motif is one eminently suited to a craftsman using a lathe for the thin lines are pared down by spinning and the wavy effect then achieved with a punch, knocking the originally straight rim line from side to side. Such a simple motif does not make for a unity of material in itself, but, coupled with lathe turning, it does give a certain chronological coherence.

The Snailwell burial dates to <u>circa</u> 10 B.C. - 50 A.D.

(Stead, 1967, 47); on stylistic grounds, Simpson dates the hoard from Polden Hill (Somerset) by the brooch types which suggest a range from circa 50 - 65 A.D. (1966, p. 68). The hoard includes enamelled horse-trappings and harness-fittings as well as three bronze shield bosses. Harford (1803, 91) originally suggested that such pieces may 'have been intended for the breast-plate for a woman', but their purpose had definitely been established when Smith, writing in 1905 (128) was able to assert that the three bronze shield bosses were allied to those of Thorsbjerg. Although these three shield bosses are of very thin bronze, there is no reason to suppose that such pieces are of necessity only ceremonial (Pl. 42). With a leather padding and a wooden planking behind, they could easily form the gleaming boss of a perfectly serviceable battle shield. In view of the chariotry finds in the hoard, it is even possible that the shields were wielded by a chariot-warrior for whom light-weight equipment would be a most important consideration.

The decoration on the flange of Polden Hill (1) centres on the four symmetrically arranged rivet-holes, which have presumably held ornamental heads. Four thin S-scrolls hook round these rivets interlocking with one another, and Llyn Cerrig voids have been inverted into the triangular space left by the joints. Two of these joints are flanked on the outside by laurel-leaf motifs (not shown on Fox's sketch, 1958, 116, fig. 72). The inspiration seems to be the circular motion of, for example, the Wandsworth-Round boss, and, given imagination, the rivet is the 'eye' and the 'voids' are the beak and crest of just such birds as are found on the Wandsworth piece. There seems to be no reason to disagree

with Fox's analysis that this is a Dobunnian piece and that the scrolls are related, for example, to the Wraxall collar (1958, 116, pl. 61a).

A most interesting piece of evidence which has not been brought previously into any discussion of such round shield bosses, is a votive slab depicting three armed figures found in a well in a Romano-British village at Great Chessels, Lower Slaughter (Gloucestershire) (Pl. 52, below). The village dates from the middle 2nd to the late 4th century A.D. (O'Neil and Toynbee, 1958, 52, pl. ix, 1). The figures are uncompromisingly Celtic in appearance; the two faces which survive have long flowing hair, and the central face has just the suspicion of a drooping moustache. All three figures wear belted, kilted tunics, and from behind their shields hand sword-scabbards, all of which have large globular chapes, a type presumably of Roman inspiration. But the shields which are the main feature of interest are small, round bucklers, which cover only the upper part of the body and have round, central bosses. This is important confirmation of the use of the round shield with round central boss in South Western England in the 1st and subsequent centuries; for it is always difficult to suggest the shape of the shield itself when only the boss survives. The evidence of this stone provides an interesting contrast to the many indifferent Romano-British altars portraying a war god bearing Roman arms which have been fully examined by Clifford (1938), Toynbee (1964, 178f.) and Ross (1966, 183 ff.). Ross has suggested that the appearance of the war-God as a healer in the South West might betoken Belgic influence, and the discovery of the triple sculpture of the god as a votive deposit in a well may

support this attribution (1966, 184). The Great Chessel sculpture may suggest that the Snailwell and Polden Hill bosses have belonged to round shields, but the Stanfordbury boss shows that the strip-boss and spina type of shield is also to be found in the Belgic world.

It is worth noting at this point, when the Belgic influence in these round bosses and shields is being stressed, that very little is known of Belgic armament as such. Snailwell and Stanfordbury offer the only information on Belgic shields in Britain; none of the shield models, for example, comes from definitely Belgic contexts. The fragments of mail with gilded bronze mounts and small pieces of leather from the Lexden tumulus (Essex) are discussed in greater detail in Chapter 7, but it should be noted that the objects originally described as chariot fittings, are now thought to be the curved iron and bronze sheets which have formed the sheathing for a bucket, although their state is too fragmentary to be definite (Laver, 1927, 244, pl. lii, fig. 1). Thus the only Lexden arms are the mail and a possible iron ferrule.

The Belgic influence suggested for the shape of the Polden Hill bosses and the Great Chessel shields is also a relevant consideration when the lathe-spinning, which has been employed on two of the shield bosses from Polden Hill, is discussed. Two areas of influence might however be detected, for although the use of the lathe for metal spinning on any scale does seem to be a feature of the Belgic world, examples of this kind of work have been found at Glastonbury, where hubs, bead-rimmed vessels and tubs were turned in wood and a bracelet in shale (Bulleid and Gray, 1911, 265, fig. 54). The bronze bowls, which are the best known examples of British Iron age

lathe work, mostly occur beyond the area of Belgic settlement. The Rose Ash bowl does not seem to have been lathe spun, although there are faint striations on the exterior, near the handle, but the Youlton and Birdlip pieces, though not wholly spun, were shaped at the neck and rim on a lathe, and these are all outside the sphere of Belgic influence. It seems possible, however, that these technological features are less certain cultural traits than are types of pottery or burials and are much more liable to be picked up by neighbouring tribes in Southern England, particularly when metal spinning may be no more than a refinement of an already practised technique.

It does seem to be significant that lathe spinning should be associated with conical round shield bosses at both sites: at Polden Hill two of the boss are spun and at Snailwell there is the spun bowl. Polden Hill is in Dobunnian territory and Hunsbury, where round bosses also occur, on the edge of it, is within the area of coin finds of the Dobunni and the Coritani (OSSB, 1962, Map 5). Both tribes appear in Rivet's list of Belgic influenced peoples,and this influence may also be sensed in the field of weapon types (ibid. 12).

Little can be added to the catalogue description of the Hunsbury pieces (Pl. 39); they were found without any recorded context during the commercial exploitation of the hill fort during the 1880's. The spike from the centre of the boss is the most unusual feature of these shields. It is not certain whether there have been rivets in the flange to attach the boss to the planking of the shield or whether, as in the case of Snailwell, the rivets have been inserted outside the boss and the boss has been kept in position because their broad heads

overlapped the flange.

Snailwell seems to be the closest local parallel for this type, where the boss instead of being dome-shaped is conical, and its pointed tip may have served the same purpose as the Hunsbury spikes. The interesting new shield from Owslebury has also a distinct conical projection, but as this is in thin beaten bronze it might be less effective in battle than the iron pieces just discussed. Spiked boss of this type are known from Germania in La Tène III and this type is common in South Western Denmark (Klindt-Jensen, 1949, 47f., fig. 19, b.).

In this discussion of the round shield bosses, apart from what is taken to be Belgic influence and the background of these pieces in the late La Tène continental shields, there is also the possibility of Roman influence. Several Roman shield bosses were noted by Piggott in his republication of the Carlingwark and Blackburn Mill hoards, and there is no need to repeat his list (1952-3, 37, 47). But the nicked bronze boss from Copthall Court, London, mentioned there, is very close to the Carlingwark fragments. A Roman shield boss 20cm. in diameter with a domed boss and circular flange with four axial attachment-rivets may be mentioned from White Forse, Teesdale, Yorkshire (British Museum 1883, 7 - 5, 105), but surprisingly few such Roman pieces have in fact survived in Britain.

CHAPTER 6

(i) Roman Auxiliary Grave Slabs

An important source of information about native shields after the beginning of the Roman advance is from the Roman representations of their defeated adversaries on sculptured monuments. There are two groups of these, distinct in origin and date. The grave *stelai* of auxiliary cavalrymen who are shown riding down and tilting at barbarians with their spears are mainly of mid- to late 1st-century A.D. date. Two of the distance-slabs from the Antonine Wall form the second group and date to 142 or 143 A.D. A number of Celtic war gods are portrayed on altars and votive plaques, and as many are the work of Celtic craftsmen themselves they are particulary relevant to this study.

Roman grave *stelai* and distance-slabs have recently been the subject of two studies; Toynbee (1963, 189ff. and 148ff.) discussed the pieces from an historical and artistic point of view, and Collingwood and Wright (1965) examined them with special reference to the inscriptions. There is, however, still a place for a close examination of the figures of the fallen native warriors or captives who appear on a number of them and on two of the Antonine Wall distance-slabs. References to these works will be found in the lists of sites in the Appendix to this chapter.

A tombstone from Colchester, of Longinus, an auxiliary of the First Cavalry Regiment of Thracians, dates from before the establishment of the *colonia* there in 49 A.D. and during the Boudiccan revolt it was defaced and overturned (Pl. 50, below left). The horse is impatiently static with its left foreleg raised, and Longinus himself is unconcerned about the crouched

barbarian, who is framed by the horse's right legs. The naked foe is doubled up on his shield - his knees drawn close up to his body and his right arm protecting his head. His head is in a curiously unnatural position and, were it not for lively expression, it might be possible to suggest that it had been severed. The streaming hair and long moustaches and beard are characteristic of the Roman sculptor's portrayal of the northern barbarians, but the animal-like ears and features, Toynbee notes, are peculiar to this sculptor. The native's only weapon is his shield upon which he is cowering. It is oval in shape and would be of suffieient size to protect him at least from hip to shoulder. Of interest, too, is the short tunic with short sleeves of leaf armour of East European type that is worn by Longinus himself. To suggest that the sculptor himself is of Celtic extraction as Toynbee does (1963, 190) on the basis of the barbarian's hair styling and the lions above the niche seems to be less certain. But if this is so, it makes the representation of the shield and the leaf armour even more interesting.

Another Thracian cavalryman is commemorated on a stele at Gloucester, also of 1st century date (Pl. 52, above). Rufus Sita is helmeted and armed with sword, spear and shield. His horse is about to trample his enemy, and he himself has poised his spear above the naked barbarian who is lying full length on his back. Although crudely executed this figure is surprisingly vivid - his left hand is raised to protect his head while a muscled right arm holds a short sword. He is portrayed in profile with oval eye, large nose, small mouth and unlikely ear, and his hair thrown back from his forehead is less wild than that of the Colchester native. The sword does not seem to have a

pommel though the hilt-guard is clear. The blade tapers quite definitely and there is the suspicion of a curve. Toynbee has assigned this piece to a "provincial army-artist", and in view of the not very naturalistic rendering of the native's legs, it would be unwise to read too much into this representation of the short sword.

Two auxiliary tombstones from Cirencester are also mid-1st century A.D. That of Dannicus is in the style of the cavalryman with spear poised above his foe. His horse is about to trample an unfortunate barbarian, whose prostrate figure is portrayed without weapons, and the stone is too badly weathered to make out his features. Genialis, a Fresian serving with a Thracian ala, rests his spear on the chest of a prostrate naked barbarian. The native's sword has both pommel and hilt-guard, and the parallel-sided beginning of the blade is just visible. Part of a hexagonal shield large enough to afford protection to the upper part of his body is also portrayed. The shield is a variant of the long oval one - for the top and bottom form short sides while laterally the sides are longer. The line which edges the shield may indicate either a metal U-shaped strip or a stitched leather binding. The face of the barbarian is surrounded by a shock of hair and he has a moustache, but the features are not now very clear.

From Bath an inexpertly executed stele to Lucius Vitellius Taucinus, an auxiliary originally from Spain, has a quite uninformative figure of a barbarian framed under the horse's hooves. It is not possible to do more than note what may be a sword in his only visible hand.

At Wroxeter, a cavalryman of a Thracian cohort is commemorated by such a stele although now it survives only

in part (Pl. 50, above). The figure of the barbarian is fragmentary and the head is missing. He holds a sword which has a distinct pommel and a blade with a tapering point, as well as a long oval shield. The shield has a central boss with a spina, and, as there is no visible break between these pieces, it is possible that they have been made as one, either carved from a single piece of wood in the manner of one of the Hjortspring shields or made from a single metal strip; in Britain an example of the latter comes from St. Lawrence.

The oval shield on the Ribchester stele is strengthened by a long pointed central ridge, and there is also a strip boss of classic La Tène type (Pl. 50, below right). This portrays exactly the make-up of the shield which has already been described with the metal strip arching over the wooden boss and protecting it laterally. It could easily be a representation of one of the shields from La Tene. The stele is otherwise quite unexceptional. Toynbee suggests a date not later than Trajan (98 - 117 A.D.). Collingwood and Wright note another stele (now lost) which portrayed a cavalryman riding over a naked barbarian who holds a rectangular shield. The manuscript illustration however does not show either with sufficient clarity to be useful.

The stele to the cavalryman Flavinus was found in 1881 in the foundations of a porch of the South transept of Hexham Abbey where it is now housed (Pl. 51, above). The naked barbarian is crouched on his knees, clutching his sword in his right hand and holding it upwards in hope of inflicting a blow on the horse which is about to trample him. The sword has a round pommel and there is trace of a hilt-guard. An oval shield is shown behind him. The barbarian, in Haverfield's words 'about to revenge, overthrow and insult', is portrayed with swept back

hair and almost oval eyes, snub nose and a rather leering mouth. On stylistic grounds Toynbee dates this piece to the second quarter of the 2nd century A.D. while Collingwood and Wright take it that, as an honorary title given to Flavinus' squadron in 98 A.D. is not mentioned, it must date to before this.

From Stanwix comes another such tombstone, but the warrior here is naked and weaponless, with his hands tied behind his back.

A tombstone from Chester is dated, perhaps, to the mid-2nd century, as the cavalryman's pounced tunic indicates mail which is not known to have been used in the Roman army before the second decade of the 2nd century (Pl. 53, above). Attempts at representing leaf armour are known, and mail was worn in areas from which the natives might be pressed into service. The pouncing may even indicate a leather cuirasse. The sadly proportioned barbarian is of interest only in showing a shield of rectangular shape.

Only a fragment of a second stele remains, but this centres on a barbarian figure which is perhaps the most sympathetically carved of the whole series (Pl. 53, below). He is sitting up, supporting himself with his left arm and clutching one of the horse's hind legs. He seems to be pushing the other hindleg back with his right leg. Between the horse's forelegs his spear stands broken. A baldric hangs over his right shoulder; obscuring his left arm is a mutilated feature that may plausibly be interpreted as part of a hexagonal shield with a binding strip and linear decoration, while the sword pommel and hilt may just be visible behind this. The characterisation of the barbarian warrior although he is bearded and tousled,

is less wild than on the other examples and his torso is sculpted with a certain expertise.

It is of course difficult to gauge to what extent such representations of barbarians are mere statements of convention or propaganda exhortations. It is here suggested that in small detail such as the barbarians' sword hilts - there is probably little attempt at exactitude - the auxiliary craftsman was surely not interested in such features of almost anthropological detail. There is too much variation in the shields shown to suggest that they should be understood as attributes after the manner of carvings of medieval saints. It is likely that the shields do represent those of the barbarians uppermost in the mind of the carver and of his fellow auxiliaries.

Those from Wroxeter and Ribchester are of particular interest as they illustrate in detail the oval (or sometimes hexagonal) shields, the metal bosses of which have already been discussed from the surviving examples. The rectangular Chester one is too symbolic to be of much help.

(ii) Antonine Wall Distance-Slabs

Two important stones from the Antonine Wall which commemorate its building in 142 or 143 A.D. have scenes in which barbarians are portrayed; and from Arniebog (Macdonald, 1934, 404, pl. lxxii, 5) a fragment of a possible distance-slab is still extant, on which there is a naked captive kneeling with his hands tied behind his back. This muscular figure with his hair swept back is a typical barbarian portrayal.

The distance-slabs from Bridgeness and from "near the farm of Summerston" are the work of craftsmen belonging to the Second Legion. Only the scene to the left of the inscription on the Bridgeness slab need be examined; on it a cavalryman armed with spear, sword, shield and helmet, rides over a group of four barbarians (not five as Toynbee, 1964, 149). The natives are naked; one has a spear sticking in his back, another has already been decapitated and what looks like a torc is still where his neck ought to be, and a third is completely defenceless. The last barbarian is armed with a small rectangular shield, the round boss of which has a flange to fix it into position in the centre of the shield. Another such shield is shown with its circular boss. A sword with pommel and hilt-guard and a spear are weapons which seem to have been lost in the battle. The natives are, be it noted, given less wild hair styles than those of the grave stelai, but whether this confirms a careful representation of the weaponry is speculative. The suggestion by Collingwood and Wright (1965, 657f.) that this side depicts the campaigning preparatory to the building of the wall, and the panel on the right side of the inscription the religious ceremony of purification of the wall shows that, if this side were to have

meaning to the Roman soldier, the natives would have to be comparatively accurately shown (Pl. 54).

The other Antonine distance-slab showing captives was found near Summerston (Lanarkshire) in or before 1694 (Pl. 55). The central inscription commemorates the building of the wall by the Second Legion, and on either side of this there is a sculptured panel. On the left a winged victory is about to crown a helmeted horseman, who thrusts down with his spear at two naked captives sitting with their hands tied behind their backs. Between them are two rectangular shields with round bosses (rather excentric to their vertical centre). There are also two swords, one below the shields and the other beside the left captive; the pommels of both swords and the hilt-guard of one are still clearly visible. The standard which is mentioned by Macdonald (1934, 373) is more probably a representation of crossed or broken spears. On the right panel below an eagle and capricorn (the insignia of the Second Legion) there is another captive, naked, with his hands tied behind his back. Behind his left shoulder the rectangular shield with round boss is again evident.

It seems almost certain that shields of this shape with round bosses were used by the Caledonian natives in the middle of the 2nd century A.D., and that these two slabs contain accurate representations of the wooden or wood and leather shields of the warriors of the Lowland tribes. This is useful confirmation of two fragmentary bosses from hoards in southern Scotland - from Blackburn Mill and Carlingwark. Both seem to have been parts of round bosses, perhaps from the rectangular shields of the type shown on the distance slabs, which would not be far removed in date from the late 1st-early

2nd century A.D. deposition of the hoards suggested by Piggott (1952-3). The circular iron mounting from Carlingwark may be no more than the surround to a leather boss - while that from Blackburn Mill consists of boss and flange in one piece, of native or less probably of Roman origin. The native quickness to adopt Roman weapon types has already been referred to in relation to the later types of helmet, and a similar adoption of their adversaries' weapons may be in force here.

There is very little descriptive ethnographic detail in Tacitus's account of the Roman advance of the years culminating in A.D. 83-4 and the Battle of Mons Graupius. The Caledonians parried the rain of missiles which began the battle with their great swords or caught them in their light shields. Thereafter the close quarter fighting was inconvenient for them with small shields and unwieldy swords - swords without a thrusting point. (The useful notes in Ogilvie and Richmond's edition of De Vita Agricolae (1967, 273ff.) have been employed in this section). The small light shields must surely have been of either wood or leather (or a mixture), but there are no northern depictions of barbarians of this period to amplify his statement. Ogilvie and Richmond discuss the meaning of caetra and note that it is a Spanish word denoting a small leather covered shield - not necessarily of circular shape and smaller than the Roman legionary or auxiliary shield (1967, 274). It is not without interest that the Batavians and the Tungri whom Agricola directed into the close combat "pushing with the bosses of their shields and stabbing at their enemies in their faces" are auxiliaries from Germania who, even before their issue of Roman arms, would have used round shield bosses of La Tène III type, perhaps with pointed bosses of the dangerous type discussed supra p. 125ff.

(iii) Clonoura Shield

An important find from Ireland of the leather covered wooden shield from Clonoura townland (Co. Tipperary) complements our knowledge of this type considerably and provides new evidence of the shape and construction of the shields of the earlier centuries A.D. in Britain (Pl. 56, above). It owes its preservation to its deposit (or loss) in Littleton Bog. It presents a slightly convex front rectangular in shape with its corners rounded, and a rounded boss is centrally situated. The back is concave and the grip across the cavity of the boss remains in position. The planking base of the shield and the boss are of alder wood, while the grip and its pinnings are of oak. The boss and its individual leather cap are fixed to the shield by heavy stitching. The rest of the front is covered by a single piece of leather, slashed to testify to its battle honours. The back of the shield is also covered by a single piece of leather, carefully cut to fold into the back of the boss and to cover and fold round the grip itself. A binding strip of leather stitched through prepared holes in the wood holds the leather coverings together.

It is thus as recently as 1960 that confirmation has been discovered of the wood and/or leather shield that has for years been postulated as the defensive weapons of natives of Britain. Held together with stitching there is slight chance that such weapons should survive in any but exceptional circumstances. The proportions of the Clonoura shield are particularly interesting as in size it must closely follow those of the Bridgeness and Summerston distance-slabs. The cover afforded by such shields is not extensive and must surely in Roman

eyes be worthy of Tacitus's "small and light" jibes. The Clonoura shield joins the Kasim el Harit, the Hjortspring, La Tène, Vadebrø shields as valuable confirmation of Celtic use of perishable materials for defensive armour.

The series of Roman leather shields (or shield-covers) from Valkenburg (South Holland) offer a number of interesting comparisons; they date to between 40-50 A.D. Where it was possible to determine their original size they are twice as long as the Clonoura shield and not quite twice as broad and for this reason the front of the shield has been covered by several pieces of leather. From the sizes of these it was suggested that the largest pieces of leather available in workable sheets measured about 65-75 cm. in length. It is possible that the size of the Clonoura shield for example was governed by very similar considerations; it is 57 cm. long. The umbo of the Valkenburg examples consists of a separate circular piece of leather with a dart cut out of one side to provide the height required for the handgrip behind; the separate Clonoura boss has skilfully been worked into shape without the necessity for cutting the leather.

(iv) Celtic and Romano-British Warrior Gods

There is a further small group of contemporary illustration of Celtic weaponry. Deities who may with confidence be ascribed to the Celtic pantheon appear on votive plaques or small pieces of sculpture. Of third century date are the Cocidius plaque from Bewcastle (Cumberland) (Pl. 56, below) and the mould for an applique figure of Taranis from Corbridge (Northumberland) (Pl. 57, above). A piece of less certain date which shows a horned warrior god comes from the region of Maryport (Cumberland) (Pl. 57, below). The silver plaque from Bewcastle shows the god standing in an archway and holding in his right hand a spear while with his left he supports a rectangular shield which has a round central boss. On a second embossed plaque the god is represented in a most schematic fashion and holds only a spear. A figure which has attracted much attention is that produced by the mould found at Corbridge depicting the god Taranis. This bearded Celtic deity, who wears a short tunic and a knobbed helmet with cheek piece, carries a gnarled club in his left hand and in his right a rectangular shield. The wheel which suggests that this may represent the wheel-god Taranis, is beside his right leg. The shield like the other rectangular ones examined, is long enough to cover the upper part of the body and seems to be very narrow. In the centre there is a circular boss with its flange clearly shown. The shield is covered with a pounced design of circles with dots in the centre - a convention that is on sculpture sometimes taken to indicate leather, for example at Fox Amphoux and Entremont. A curved piece of decoration using the left side of the shield as the arc of a circle covers much of the face of the shield. A curved line joins the top and bottom

left-hand corners - and divides the surface of the shield into an arc on the left and two triangular pieces on the right. Can this suggest that the "hide" was folded over on the front to give added strength? It is also possible that no single piece of leather was large enough to cover the shield and that this scheme makes the strongest use of available materials.

A final piece of sculpture from Britain may be mentioned; it comes from the region of Maryport and is now in the Netherhall collection. A naked Celtic horned-god is shown holding a knob-butted spear and a rectangular shield with a round boss and, although it is very similar to the other rectangular shields under discussion, it is not otherwise very informative.

There are also a number of pieces presumably of Celtic origin which follow Roman prototypes to such an extent that they are of little help in our study. Many of the Roman altars in Gloucestershire discussed initially by Clifford (1938, 297ff.) do portray warrior gods and some are the work of local (probably Celtic) sculptors but they are not relevant to this study. A roughly carved relief from Stow-on-the-Wold (Gloucestershire) is interesting however as a rectangular shield is portrayed and Ross notes that the figure is of a kind found in the region of Hadrian's Wall, and the shield would certainly not be out of place in the North rather than the South West (1967, 188, fig. 124). A votive slab from Great Chessels, Lower Slaughter (Gloucestershire) shows three aggressively Celtic warriors but, as their shields are round with round bosses, they have been included in the discussion of the Polden Hill bosses.

(v) Miniature and Votive Weapons

Miniature weapons were made by Celtic craftsmen and were deposited presumably by the warriors of the tribe in temple sites. Such votive pieces were made both in clay and in bronze. As they are Celtic models of their own shields their value to this study is even greater than those of the Roman illustrations. In Britain such models come from two dated contexts from Worth (Kent) and Frilford (Berks.), the former from an immediately pre-Roman occupation, the latter from a phase of the site, which, although pre-Roman from a cultural point of view, is Flavian in date (i.e. later 1st century A.D.). A similar model from Hod Hill (Dorset) cannot be dated exactly.

There are three bronze shields from Worth; a complete one is rectangular in shape with round central boss, and two survive only as fragments. The complete shield of thickish bronze measures 4.4 x 1.7 ins. The boss is cracked slightly and on the back there are two pairs of grooved lines on either side of the boss which may indicate the grip attachments. It is of interest that a pair of small slashes are present on either side of the back of the Clonoura leather shield although their purpose is obscure. Only one end of the second model remains, with straight sides, a rounded end and a decorative end-boss, and its suggested reconstruction gives it a layout not unlike the Battersea shield. The third shield is of long oval type with a central oval boss; a curving cruciform pattern centres on the boss and is graved with a zigzag line but only half of this shield survives. One of the most interesting features of this little assemblage of shield models is its variety - rectangular with rounded

ends and round boss, straight-sided with a curved end, and oval and oval boss. It warns cogently against the argument of a single type of shield in an area at any time. The rectangular shield with round boss may suggest the shape of the Snailwell boss, not of necessity the round buckler suggested by Lethbridge, but closer to the Bridgeness and Clonoura shields (1954, 29).

The Frilford shield is also bronze; it measures 2.4 ins. in length and 1.4 ins. in breadth and has a central spindle-shaped boss, the points of which are most visible in Thomas's illustration (1965, pl. 263). The structure from which the model comes is certainly ritual, and a small model sword is also recorded, measuring in all some 3 ins.

Hod Hill (Dorset) has produced the most complete British example of this small series even though the bronze is slightly damaged. It has been about 4.5 in. long and almost 2.25 in. broad. The boss, which has been hammered up from the back is spindle-shaped and the long spina extends on either side of it. A handle with circular terminals bridges the boss at its broadest. The rivets of this fixture are visible on the front of this shield, and in line with them on the left side there is a small rivet hole the purpose of which is uncertain. The right side, in which there may have been a similar hole, has been damaged.

The Hod Hill model confirms the interpretation of the native shield on the Tiberius Claudius tombstone from Wroxeter and that on the Ribchester stele. Shields of this type made of wooden planking with a wooden spina and handgrip, whether covered in leather or not, cannot survive except in exceptional conditions. This type and possibly that of the first example described from Worth (rectangular with round boss) probably

represent the most common shields of the British tribes in their encounters with Roman might.

A model shield was discovered at Breedon-on-the-Hill (Leicestershire) in 1966 but it has not yet been published. It is oval in shape measuring about 3 in. by 2 in.; there is a small round boss at its centre and two holes on the short axis of the oval, through which a small leather thong seems to have been attached.

Model shields are not only found in Britain. A small rectangular clay model about 5 x 2.6 cm. was found with a group of ritual models at Podebrady (Bohemia) (Neustupny, 1961, 141, fig. 41c). From Gurina (Karnten) a votive oval bronze shield is decorated in repousse with a line of dots round its edge and the round boss and pointed spina are also shown in repousse (Pittioni, 1954, 764f., Abb. 533, ii). Three model shields from Telamon are illustrated by Montelius (1904, pl. 205, no. 9).

The measurements in centimetres must also be provided:

Worth	11.2 x 4.3cm. (best preserved) (Pl. 58, above 2 - 3).
Frilford	6.1 x 3.6 cm.; sword 7.7 cm. long.
Hod Hill	11.5 x 5.7 cm. (Pl. 58, above 1).
Breedon-on-the-Hill	circa 7.7 x 5.1 cm.

(vi) Roman Shield Brooches

Roman brooch art continues the idea of the votive/model shield. Examples are found from Lydney (Gloucestershire) and Verulamium (Hertfordshire). These may be mentioned as comparative material in this study of shields though they are not of necessity native in any sense. Lydney (a) is of long oval derivation with the ends slightly nicked. It has a round conical boss in relief and a specifically Roman stem with twin curl decoration that can be paralleled at Newstead.

The field of the brooch is enamelled in yellow. The second brooch (b) is haxagonal and rather more abstract. A long S-motif winds from top to bottom and two raised circles above and below this line are surrounded by two fields of yellow enamel.

A rectangular brooch from Verulamium may also represent a shield. It has a central circular boss and two pairs of opposing "comma" motifs are outlined with green and filled in with yellow enamel; it dates to 80-150 A.D.

The round conical boss of Lydney (a) links these shield brooches to a number of disc brooches which may possibly represent round targe-like shields,like those from Snailwell for example. Such disc brooches are quite a common feature of sites of the late 1st and first half of the second century A.D. and are found for example at Wroxeter and Newstead, but the type does seem to have a long life and the shield analogy is rather tentative. Lydney (c) and the Richborough brooches belong to this broad group. A number of other sites from which brooches of this type have come are listed in the Appendix.

(vii) Pictish Sculptured Stones

The rectangular shields shown on the Antonine Wall distance-slabs do seem to be illustrations of the shields of the Caledonian tribes of the 2nd century A.D. and taken in conjunction with the evidence of the Cocidius plaques and the Corbridge mould, the shape of the Bridgeness shields may be seen to be neither an accident nor mere artistic invention. The continued use of this type of shield in Scotland is shown by the Pictish symbol-stones, where rectangular shields are found as well as round bucklers. In view of Thomas's discussion of the symbolism of these stones and his ascription of the meaning of some of them to a Celtic background, this follow-through of actual illustration is not without interest (1963 and 1964 passim). Not one, however of the horsemen represented on these stones carries a rectangular shield of this type, and they are without exception armed with a round targe. A stone covering a triple inhumation in the cemetery on the Brough of Birsay (Orkney) shows three infantry men with a sword, spear and square shield apiece. Tunics rather than trousers suggest that these warriors are not Celts. Their shields have a binding strip and squarish bosses. The first member of the procession and presumably most important of the trio has a highly decorated shield with spirals and concentric circles; the other two are plain, apart from rectangular bosses and four circles on each. A stone from Shandwick (Ross) shows a combat scene between two foot soldiers both armed with swords and small rectangular shields. It is possible that they are of Celtic stock for both have rather unruly hair and wear beards, but perhaps most significantly no details of their clothing are shown in contrast

to the tunics of the other people shown on the slab. From Kirriemuir No. 2 and Eassie (both from Angus) there are two stones which portray foot soldiers armed with spears and small rectangular shields. The former shows traces of a binding strip and a circular boss while the boss on the latter is more rectangular. Both warriors are wearing, not the characteristic tunic shown on so many of the sculptured stones but a cloak of sorts, and the Kirriemuir figure seems to be wearing shorts. A figure on the rear of Aberlemno No. 2 (Angus) appears to be holding a rectangular shield with a rectangular boss. The sculpture is, however, too worn for any other features of the warrior to be discerned. These all belong to the Class II of Pictish stones dated "from the late 7th century A.D. onwards" (Thomas, 1964, 33), but there is an important example from a Class I stone from Newton of Lewesk (Aberdeenshire) which has not so far received much mention in any study of shields. A shield like those shown on the Bridgeness and Summerston distance slabs is found with a spear behind it and a double-crescent and a disc symbol above and below it respectively. A feature that makes this stone especially relevant is the boss on the shield which is elongated rather than round and is precisely similar to the Clonoura shield already discussed. The date of the Class I slabs is the subject of much discussion, but Thomas has suggested that a date between the late 5th and late 7th centuries A.D. should include most examples (1964, 33).

It may therefore be suggested that in Scotland this type of rectangular shield in leather and/or wood has a long life from the early centuries A.D. to the 7th century at least and, on the Class II evidence, probably beyond. Furthermore these

shields may be among the Celtic objects represented on the Pictish stones, unaffected, except perhaps in a reduction in size, by the infusion of non-Celtic and more Germanic types such as the bow and arrow, round buckler, tunics rather than trousers, and, best known of all, the helmets with nose guards on the Aberlemno No. 2 stone. With manuscript 'Celtic' art, a careful sifting of motifs is required to find the lurking Celt, and the scenes on the Pictish stones can hardly be taken to indicate a virile Celtic society. They show possibly the least Celtic stratum, the upper class, and it is sometimes suggested that many scenes may have been copied from imported artistic pieces.

In this welter of descriptive detail of the shields of the native tribes of the earlier centuries A.D. in Britain it must not be forgotten that the shield is just one of the weapons in use. Little can be added about the other weapons of defence. What is known about helmets has already been discussed, and there is no indication of body armour apart from the mail fragments examined later.

The sword and the spear must have been the most common offensive weapons, and Simpson has recently re-examined the swords of North Britain as well as artistic chariot and harness fittings (1966, chs: 4 and 3). Although spear butts were included by Simpson (1965, p. 161-165) in her study of weapons and defensive armour, the presence of knob-butted spears on one of the pieces of sculpture described above, from Maryport (Cumberland), in association with a rectangular shield, brings them within our field of reference. Simpson distinguished two groups - the first was a simple spherical knob with a slightly flared socket and in the second the

socket was elaborated with ribbed mouldings. Examples of the former group come from Broomend of Crichie, Inverurie (Aberdeenshire) and as a mould from Traprain Law (East Lothian); the well-known example of the second group comes from the Broch at Harray (Orkney), but it is also represented at Traprain Law and as a mould from Dunagoil (Bute). It is as confirmation of the date of the rectangular shield series that the butts are particularly valuable. The Crichie butt was found in association with a massive terret, and Simpson has ascribed this type to the 2nd century A.D. date although with overlap earlier and later. Coinage of late 1st - 2nd century A.D. was found in the same level at Traprain as the butts. A silver plaque from Bewcastle, like that just discussed, discovered in the underground strongroom of the Headquarters building, is decorated in repoussé with the figure of Cocidius holding a spear with knob-butt and this piece seems to be 3rd century A.D. in date. Dio Cassius, who was writing circa. 230 A.D., describes some of the events in North Britain at the time of Septimus Severus's campaign in 209 and 210 A.D. He describes their warriors thus.... "They fight from chariots, and have small, swift horses. Their infantry are extremely fleet of foot and enduring. Their weapons are a shield and a short spear with a knob of brass on the end of the butt.... they have also daggers". Most of the spears or javelins, however, have been tipped with bone points and few throwing weapons can have been butted with bronze as there can have been little thought of their recovery. The bone points from Grimthorpe or Bac Mhic Connain (N. Uist), (PSAS, lxvi (1931-2), 52, fig. 8) for example belong to a type which must have been very current among the northern tribes. Tacitus had heard that the Aestii,

a South Baltic Germanic tribe, 'worship the Mother of gods. They wear, as emblem of this cult, the masks of boars, which stand them in stead of armour or human protection and ensure the safety of the worshipper even among his enemies. They seldom use weapons of iron but cudgels often'. Germania, 45. The arrows of the Fenii 'which, for lack of iron, they tip with bone' (ibid., 46) are surely of this type. These have been fully discussed by Becker and Roes (1948, 162ff. Abb. 16 and 19; 1963, 37f.).

Battles with Roman armies began at a distance and, at Mons Graupius for example, with an exchange of missiles; then the Romans forced the close fighting for which the Celtic weapons were so unsuited. There was no sword swinging room for their long-swords and, according to Tacitus, their shields afforded no protection against an upward thrust from a Roman short stabbing sword. It seems more likely that they lacked the cohesion of a Roman advance and were accustomed rather to a battle of single combats in which each soldier fought an enemy for personal glory then to an advance of the impassive and non-flamboyant Roman legionaries and auxiliaries. Some thrusting weapons are known and the Ogmore Down barbed spear can find parallel in Irish tales. The description of Cú Chulainn's armament with a 'horrible spear.....so hideously barbed that it could not be extracted', was noted by Jackson (1964, 15f.), and there is an inevitable comparison between this and Diodorus Siculus who remarks (V, 30) 'Some javelins come from the forge straight, others twist in and out in spirals for their entire length; the purpose being that the thrust may not only cut the flesh but mangle it as well and that the withdrawal of the spear may lacerate the wound'. But from the Irish tales Jackson takes a shield made of alder wood, like Clonoura, and a spear to be the most common warrior

equipment.

The warrior chariot is not our concern - the Romans found the Southern Britons using this method of warfare (already out of date on the Continent) in 55 and 54 B.C.) and the Caledonians were still using them in the 3rd century A.D. as the passage from Dio shows. It seems likely that this affected Celtic weapons in several ways although the warrior alighted before battle. Lightness would naturally be important, and a heavy unwieldy shield would have been an encumbrance. Spears thrown from chariots which, according to Caesar, try to infiltrate enemy lines are a characteristic battle tactic, and each warrior must have needed quite a supply of dispensable spears; and when he had hurled them all he could resort to fighting on foot with only his sword and shield.

This chapter has attempted to give a picture of the shield types involved and, although much well known ground has been trod, perhaps a clearer one has emerged than that previously known. The early auxiliary grave stelai show shields very much in the Celtic continental tradition of La Tène and Vadebrø - long ovals possibly with spina strengthening. The Antonine Wall distance-slabs and the Celtic votive pieces, mainly of the 2nd and 3rd centuries A.D. and mostly with a northern distribution, show a more rectangular shield with a round boss which has its origin in Roman shield types - perhaps a background in the semi-cylindrical scuta which are shown on the tombstone from Croy Hill (Dunbartonshire) (Macdonald, 1934, 446, pl. xlviii, 2). It is likely too that there is some influence from Celtic Southern Britain in the adoption by the Northern tribes of this type of shield and boss; Snailwell, Polden Hill and Hunsbury are the most

striking southern examples of a type represented in the North by the fragments from the Blackburn Mill and the Carlingwark deposits. This type of shield may then be shown to be used in the Pictish area until the 6th century A.D. at least and possibly even later.

CHAPTER 7

BODY ARMOUR

The body armour of the Celtic warrior may be discussed in three main groups - bronze corslets, leather cuirasses and mail shirts. The term 'cuirasse' is employed only for leather body armour, and 'corslet' is reserved for metal plate-armour, particularly for sheet-armour in beaten bronze. Thus 'cuirasse' and 'corslet' are used for the German 'Lederpanzer' and 'Metallpanzer' respectively. Blair, in his volume on 'European Armour', which has been used as the basis for much of the terminology in this chapter, records that by the 15th century A.D. cuirass and pair of cuirasses were used to indicate metal breast - and back-plates as a unit (1958, 38). It seems more satisfactory, however, to retain for this study the leather connotation for the term cuirasse (and thus a French spelling), but it must be stated that this distinction is not always observed in archaeological writing either in English or in French. 'Chainmail' which is dismissed as a 'mere piece of modern pleonasm' (ibid., 20), is not employed in this chapter and 'mail' alone or 'mail shirt' are the recognised terms for 'Ring' - or 'Kettenpanzer' or 'Cotte de mailles'.

An interesting differentiation between types of body armour cuts across the division suggested above, but, as it is difficult to detect from archaeological remains, it has

not in the past received much attention. This is a division, employed in any discussion of medieval body armour, into mail, soft armour and plate armour; the latter group obviously includes metal corslets but also those in hardened or treated leather. Soft armour, either in untreated leather or fabric, may be padded or quilted in some way. The recognition of this type of body armour long suspected among the Celtic tribes may be shown with some confidence from La Gorge Meillet, on the warrior representations on the Gundestrup Cauldron and possibly at Roquepertuse. The definition of this type of armour in Celtic contexts is perhaps one of the most interesting new facets of this study.

The Bronze Age background of the metal corslet in prehistoric Europe has recently been succintly summarised by Snodgrass (1964, 71ff.) who postulates the invention of this form of body armour in Mycenaean Greece whence it was introduced into Central Europe in Bronze D phase of Reinecke's scheme, in about the 13th century B.C. At Čaka in Southern Slovakia, a cremation burial under a tumulus contains fragments of a bronze corslet of this type (Powell, 1963, 217, fig. 2; Snodgrass, 1964, 80, fig. 4: both with references) and it may be from Central Europe that the corslet is reintroduced to Greece in the 8th century to take its place in the 'hoplite panoply'.

In the Eastern and the Western Alps there are two groups of bronze corslets which concern this study more directly; the former dates to the 6th/5th centuries B.C., and, though the date of the latter is less certain, it must approximately belong to the 8th century, or possibly earlier. These two groups have been studied in some detail by Deonna

in 1934 and von Merhart in 1954, and their chronological positions have been made rather clearer by recent work, particularly by Snodgrass in 1964 (77ff.).

The corslets consist of a front and a back plate of beaten bronze, the edges of which are made firm by bending them over a wire; and protection for the neck is afforded by an upturned collar. The two groups are differentiated by the method of fixing their front and back plates together and by their decoration. The Western group is highly ornamented with repoussé bosses, and although such a scheme of decoration may centre on the breasts, there is no attempt to suggest the anatomy of the wearer; this is, however, an important feature of the Eastern group where decoration is sparing and confined mainly to linear ornament. The Eastern group also has a method of fixture which involves small lengths of tubing and attachment wires instead of jointing on one side and lacing on the other, which is the technique employed on the Western corslets.

There is no need to recapitulate Snodgrass's full discussion of the chronology of these groups, but it is interesting to note that the find from the Saône at St. Germain-du-Plain represents similar contact with the North Adriatic trading centres as do the contemporary Greek objects from Vix, and it is possible that this corslet is the result of some diplomatic exchange in the 6th - 5th century B.C. Body-armour of this type may have been copied in leather, but no such armour was found at Hohmichele, and later there is no trace of such protective garments in the chariot burials of Somme Bionne or Châlons-sur-Marne dated to about 420 B.C.; although both graves were excavated in

the last century, neither bronze buttons nor discs which might be expected as decoration for even a leather cuirasse were found.

Interesting information on this subject comes, however, from the chariot burial at La Gorge Meillet where four bronze knobs (2.2cm. in diameter), with rosette decoration, were found in two rows on the chest of the warrior. There are short pegs on the rear of these pieces, and one still retained the remains of the textile to which they had been attached. These four knobs, possibly purely decorative, are important precursors of the two shoulder buttons which are to be found later on cuirasses and suits of mail. At La Gorge Meillet, apart from the evidence of the remains of the material of the knob, an actual piece of a woollen garment was found on the chest of the warrior, and the two fibulae which are recorded from the burial appear to have been used to secure this; the discovery of the fibulae at the waist of the warrior suggests that the garment had not been a loose fitting cloak, since these were normally fastened at the shoulder (Fourdrignier, 1878, pls. i and viii; Jacobsthal and Langsdorff, 1929, 35).

Recent work in Italy has shown that the Celtic incursions over the Alps may have begun as early as the mid-5th century B.C., and the interruption of Greek imports into the North Adriatic region at this time may have been the result of Gaulish invasions. The important grave at San Martino at Gattara, discussed already because of its Negau helmet, belongs to <u>circa</u> 450-430 B.C., and Bermond Montanari has suggested that there may have been small groups of Celtic soldiers and farmers in North Italy at that time;

but she goes on to suggest that there is a break in this occupation by the late 5th century before the main invasion began. The greave from the San Martino grave shows the adoption of southern weapons, possibly stripped from the body of a dead foe, and this suggests that even the possible representations of Celtic warriors at this time need not show only their own weapons.

The art of the situlae of the North Adriatic has already been discussed because of the helmets represented on the warrior friezes, and, on the final group of such situlae, dating to the early 4th century B.C., there are a number of martial scenes, which are taken by Frey, among others, to show Celtic types of armour; the helmets on the Arnoaldi situla from Bologna have already been examined in some detail. The foot-soldiers wear short tunics which are fringed, and, as the shields are shown with a similar fringing, it is possible that these too are leather-covered. The charioteers on the upper frieze of the same situla also wear such a fringed tunic.

Fragments of another situla dating to rather later in the 4th century were found with a Celtic helmet and sword scabbard at San Maurizio. Portrayed on this, rather more schematically, are longer tunics with criss-cross decoration (Pl. 11, above); similar tunics are to be found on a number of the votive plaques from Este, and also on the Kuffarn situla. Although this type of tunic is local, for it is seen on the earlier series of situlae too, and thus not a necessarily Celtic introduction, it does seem to be worn by quite distinctly Celtic soldiers on the Arnoaldi situla.

But there is also the evidence of the Hallstatt

sword-scabbard to show that the soldier north of the Alps may have worn very similar garments. The artist however of this piece may have been a Celt trained in Este, for the scabbard is closely akin to the situla art already mentioned. The tunics of the foot soldiers are short and pleated below a belt, while those of the 'wheel-turners' are longer and with what appears to be a tailed-coat; all are wearing tight striped hose. The foot-soldiers on the other hand appear to be naked, with only shoes and spears apart from the shields, already mentioned, behind which they march.

The most spectacular example of a Celtic warrior adopting Mediterranean armour is that furnished by the vault at Canosa in Apulia, and the helmet from this site has already been noted. In date the tomb belongs to the late 4th, or the first decade of the 3rd century B.C., and the weaponry is accompanied by pottery, glass and gold which also show the acceptance by this Celtic chieftain of an Italian way of life. Jacobsthal took the bronze corslet itself to be a Greek piece (1944, 145, pl. 258; see also Reinecke, 1940, 50f. and refs.; corslet in the Hamburg Museum).

An unprovenanced bronze breast-plate from Karlsruhe Museum, either an Italian or a North Adriatic piece, has been worn in conjunction with a leather tunic, to which it has been stitched through a series of peripheral rivet-holes (Pl. 66, below). Three repoussé circles and a line of tongue pattern complete the decoration on the plate itself, but the two shoulder-straps and the two side pieces are ornamented with lines of repoussé bosses. It is interesting to note that the shape and decoration of the breast-plate are very similar

to the triple circle decoration and shape of a member of the helmet cheek-pieces already discussed. But, although probably used about the time of the Celtic incursions across the Alps, it is not certainly even a piece of Celtic spoil, (A.u.h.V., i (1864), Heft iii, Taf. i, 3). Jacobsthal also notes some bronze mountings with silver decorations nailed on to them, now in the British Museum and the Diergarde Collection, Cologne; the former come from Bergamo and, as the latter group was acquired through the same dealer, they may have the same provenance. Jacobsthal suggests that one group of these pieces belongs to a wooden helmet, and the latter to a cuirasse. It is difficult to see how this group would in fact fit on to such a leather garment, and in any case a Bergamo provenance does not ensure a Celtic origin for these objects, (Jacobsthal, 1944, 145, no. 134, pl. 74).

Much more important is the evidence afforded by the figurine from the votive site at Gutenberg, Balzers (Liechtenstein) where nine bronzes were discovered, and it has already been suggested that the small figures of a boar and a stag may have been helmet-crests and six small male figures were also found (Pls. 59-60). The Mars figure has already been discussed because of the helmet shown on it, but the leather cuirasse remains to be examined. It may be suggested that, as there is no sign of a split down the side and as there are no side-hinges, this is not a bronze corslet but a cuirasse and the stitching which must have existed on such a piece is not shown. Not only would a single piece corslet be difficult to make and put on, but it would also be restricting in its use as it could neither be taken-in nor let-out. The warrior would put this tube of leather on over his head and shoulders

and would secure it by the broad shoulder-straps which must have fastened above the chest by hidden hooks. These shoulder-straps are edged at the arm hole by a beaded or ribbed ridge - this might show that the edging of the leather has been sewn over a rope or plaited material. This would also give firmness and additional protection, while at the same time it would be pliable and would be rather similar to the edges of the bronze pieces, which are bent over a wire. The other edges of these two shoulder-straps have a double line of zig-zag pattern picked out round them, and this has also been used along the front of the collar. At the back of the neck there is a raised collar which is edged by a ridged binding of much the same type as those at the shoulders; the hem of the garment has a flared fringe.

The raised rear neck-guard is closely comparable to the corslets of the East Alpine group already discussed, and the dog-tooth and zig-zag ornament may also suggest this back-ground, simple and basic though it is. The spiked base on which the figure stands (and perhaps the idea of the warrior figurine helmeted and holding a spear) seems to be Italian in origin. The date of the Gutenberg figures is not known exactly; Drack and Schib (1958, Taf. 14) consider that the site is a Raetian temple site of the 3rd to the 1st centuries B.C. and that these figures are of local workmanship under Celtic and Etruscan influence.

The warrior figure from Grave 25, Idrija pri Bači, 12cm. in height, stands on a small bronze base and wears a Negau helmet and a belted leather tunic; the grave belongs to Reinecke's second chronological group of burials, which he dated to the early 1st century A.D. (1942, 141n.) (Pl. 59,

below, 2). The tunic is close fitting with piping round the neck, at the ends of the short sleeves and round the hem; a three-ribbed belt fits tightly round the waist. These figures are important evidence on the type of cuirasse found in the fringe Celtic world of the Alps, and they are useful corroboration for the fragments or representations of such armour in the North. Such tunics belong to an Italian type shown for example by the figure from Baratela, Este from the temple of the goddess Rehtia, which may be taken to date to the mid-first century B.C. (von Merhart, 1932 62n.).

Such tunics are closely paralleled on the Gundestrup cauldron; one is worn by the wheel-turning god (Klindt-Jensen, 1961, 12, figs. 8 and 33), and similar thick belts and shorts are worn by the warriors shown in procession (ibid., figs. 10, 11, 34, 36 and 40). The foot-soldier, with boar-crested Negau helmet, wears a particularly interesting tunic, consisting of a short jacket and trousers with a thick belt with two lines of knobs; at the shoulders there are two buttons which are comparable with the layout of the suits of mail (Pl. 59, above right).

One of the most important sources of information on Celtic body-armour is the balustrade of the stoa which was added to the temple of Athena Polias Nikephoros at Pergamon in Western Turkey by Eumenes II (197 - 159 B.C.) to commemorate the victories of his father Attalus 1 over the Galatian tribes. It is sometimes difficult to disentangle Celtic armour from local Mediterranean types, but it is likely that where more distinctively Celtic pieces are depicted on the friezes, they are close copies of the weapons themselves. Jaeckel (1965) provides convenient illustration of most of the weaponry.

Bronze corslets are shown on the Pergamon trophy and yet there is no certainty that these, or at least all of these, are Celtic; (Bohn, 1885, pls. xlvi; xlvii, 2; xlviii, g and 1, 26). The first is a plain torso bronze corslet and compares closely to the Canosa piece, the other two are elaborations on this theme with folding over shoulder-pieces, attached by studs on the second and by a form of clasps on the third example. This last (pl. xlviii, g) is the most complete corslet shown and, apart from the bronze pieces covering the torso and shaped to it, there is a short kilting of leather strips and a leather surround to the arm-openings. These pieces may in fact, represent the leather tunic that must have been worn under the bronze body-armour. The final piece on pl. 1, 26 survives only in a fragmentary condition. The bronze corslets may be distinguished from the cuirasses, because the bronze is beaten to show breast, ribs and navel, and such shaping does not appear to have been possible on leather body armour.

Cuirasses are shown on four of the friezes (Bohn, 1885, pls. xlii, xliv, 2; xlv, 2 and xlviii, 1); shoulder straps are again an important feature and are made secure either by

clasps or by flowing ribbons. Raised rectangular collars are formed on two of the cuirasses to protect the back of the neck (pls. xliii and xliv, 2), and this method was also found on the suits of mail. A leather fringe or kilting is found on the cuirasse as on the bronze corslets. Jacobsthal noted a Celtic pattern on one of these cuirasses (pl. xliv, 2) and included it in his corpus of Celtic art (1944, 145, no. 132), but he felt that the piece was really Greek and was body armour in bronze. It seems that this piece may, in fact, represent leather body protection and may possibly be Celtic, decorated with a mixture of Celtic and Mediterranean motifs. Both Jacobsthal (1944, 116) and Lantier (1951, 276f.) note the mention by Lucan in Antiochus, that the Galatians, defeated by Antiochus Soter about 270 B.C., wore bronze corslets; and Plutarch in Marcellus describes Celtic chiefs on the march, chiefs, such as the king of Gestates who was killed by Marcellus, and he adds that they wear cuirasses. Hubert (1950, 116) suggested that the old Celtic word for a cuirasse 'bruinne' is found in old French 'broigne', as leather or cloth on which rings or metal are applied to form body armour. The word goes out of usage in the 16th century A.D. (Larousse Etymologique).

Mail is shown on a number of the reliefs (Bohn, 1885, pls. xliv, 1; xlvi, 2; xlix, 2): (Pl. 61). Mail shirts are most commonly depicted without sleeves,and on one example there is a slight collar at the back of the neck to provide additional protection. Two shoulder straps are joined to the back of the suit and fold over the shoulders to be attached to the front by a method which is identical on all of the shirts. There is a small button or stud in the centre of

each shoulder strap and, apparently attached to the front of the mail shirt, just below the neck opening, there is a short rectangular band with three fixing rivets; the central one is fixed to the suit itself, the two other knobs overlap and presumably button onto the shoulder straps. Thus the decoration on such mail suits is a line of five knobs, three on the thin attachment strip and the other two on the shoulder straps.

Important additional information on Celtic mail comes from the Ciumeşti burial where several pieces of mail were found, and on one fragment a bronze decorative knob survived (Pl. 62). The central motif is a regular curled triscele, and on the outer band there are four pairs of back-to-back S-scrolls on the cross axes of the disc. Because of the similarity of the helmets from Ciumeşti and Apahida, the comparable triscele on the triangular side piece of the latter is particularly interesting. The rings of the mail have not been riveted, but the close mesh with each link joined to six others, must have been sufficient for the shirt to keep its shape.

An unusual feature of the make-up of the mail suits on the Pergamon friezes is the variation in direction of the mesh which the chain creates. On the front of the shirt shown on Pl. 61, above, the rings run in horizontal lines, but on the rear piece and the shoulder straps the linking is in vertical lines; on Pl. 61, below right, the ribbing is vertical throughout. Such differences are in contrast to the statue from Vachères (Basses Alpes) on which the linking has been achieved in horizontal lines of rings although the ribbing portrayed gives a vertical effect (Pl. 28, above right).

The important find from Hjortspring on the Danish island of Als dates like Ciumeşti to about the 3rd to the 2nd centuries B.C., and it is possible that the mail from this site may come from the Eastern Celtic area, with the same Danube-to-Jutland axis in operation at this time as it was most certainly about 100 B.C. At Hjortspring the suits of mail were represented merely as ochre-coloured patches or iron rust in which a few small rings of the mesh survived. Rosenberg was able to work out the number of suits deposited, as each would require about one square meter of mail; as there were some 20 to 24 square metres of rust, there were also the same number of suits (1937, 48f, 106). The number involved is not in itself surprising as there were 138 spear heads and about 100 shields in this votive deposit.

The well known finds of mail from Tiefenau (Bern) discovered during road works in 1849 along with a number of La Tène finds is made up of rings about a centimeter in diameter (Bonstetten, 1860, 15, Pl. viii, 2-6). A rusted mass of mail was discovered (qu'il fallut briser à coups de hache'.

Small rings of iron and bronze, probably representing mail, were discovered in Tumulus 3, at Aubagnan (Landes) along with La Tène II fibulae and a horse-bit, but this odd assemblage is not very informative (Fabre, 1952, 123). The problem of the origin of such mail armour is beyond the scope of this short resumé, but there appears to be no doubt that it is originally an Eastern idea. Varro's attribution of its invention to the Gauls seems to be no more than an admission that the Celts had found out about mail before the Romans (De Lingua Latina, v, 24). The earliest representation of mail in Roman art seems to be on the trophy at Adamklissi

which is of Trajanic date. The use of scale and leaf armour made up into suits is well known from Scythian and Sarmatian sources (Chernenko, Archeologia (Kiev), xviii (1965), 77ff.) and the type of shoulder strap with a knob or a button which has been described here from Celtic contexts may be found for example on the warriors shown on the Solocha tomb of the 5th to 4th century B.C. (Mantsevitch, 1962, pls. 7 and 8). One of the most exciting discoveries of recent years has been that at Brno-Židenice in Moravia, or rather the realisation that a Hallstatt grave excavated in 1925 contained the remains of a sort of body armour made up of rings, not interlocking one with another but strung on interlocking strips of material (Hrubý, 1963[59]). Hrubý has focused attention on a number of earlier finds which may belong to similar ring garment. Such discoveries in the area where Eastern ideas were impinging on the Hallstatt population does seem to confirm the general background of such armour.

A remarkable series of sculptures from Provence is of major importance in any study of the body armour of the Celts, and a catalogue of most of such pieces is provided in the notes to this chapter and the numbering of the pieces follows that explained there. Although the technique of full size sculpture of the human form seems to owe much to Greek notions presumably stemming from the Western Mediterranean colonies, the weapons shown on the figures and the structures with which they are associated are Celtic. The most important sites from which such figures have been found are Roquepertuse and Entremont; isolated finds come from Grézan and Fox Amphoux, and less certain information may be gleaned from a bust from Sainte-Anastasie. A mail suit is represented on the sculpture of a warrior from Vachères and this must belong broadly to the same group.

The interpretation of the Provençal sculpture is a rather more complicated problem than that posed by the representation of body armour on the Pergamon frieze, for there, there is a unity of style which makes it possible to assign even fragmentary representations of such armour to the correct type with some certainty. Only at Entremont and Roquepertuse are there coherent groups of sculpture, each using its own conventions throughout; for the rest, the various pieces are individual works, and there is some dispute whether the sculptors intended to show a corslet or a cuirasse or even in some cases mail. There is some doubt, for example, whether on Entremont 2-4 a bare muscled chest is represented or whether the musclature has been transferred to a moulded cuirasse or corslet. Such problems of interpretation are particularly difficult when the sculpture itself is incomplete,

and decisions about these pieces are bound to be rather subjective. Lantier saw such pieces as the Roquepertuse, Entremont and Grézan sculptures as the accurate representations of the Celtic warriors by their own craftsmen, whereas monuments in the Pergamene tradition portrayed a compromise between the real and imagined barbarian. It should be noted too, that Lantier uses 'cuirasse' for bronze body armour, and in denying the possibility of a 'cuirasse' on Entremont Torsos 2 and 3 he seems in fact to be dismissing the possibility of bronze armour (1943, 149).

Of the five pieces of sculpture from Roquepertuse, near Aix en Provence, listed in the Appendix, only one need be considered in detail as it is the most completely preserved of the group and may be taken as representative. The temple or sanctuary from which the sculpture comes may be dated to the 4th and 3rd centuries B.C., although the site was not excavated with sufficient care for the position of the pottery which provides this date to be noted exactly. The figure sits cross-legged on a plinth, and the complete statue has been carved out of a single block of limestone. The careful portrayal of the shins and lower legs of the figure may be compared to that from the Hirschlanden tumulus with which it shares a classical background. The figure is shown wearing a short pleated, sleeveless tunic with an elaborate shoulder and back covering - the latter almost in the form of a scapulary. The upper part of the tunic, above what seems to be a broad belt, is divided not into pleats but into a lozenge pattern, and this may represent some form of padded garment, perhaps even the soft or quilted body armour noted at the beginning of this discussion. The shoulder covering comes

close to the representation of pauldrons with a distinct line down the middle, across which there might have been some form of fastening, (cf. Entremont, Torso 5).

Each shoulder piece is made up of a series of squares - three at the shoulder and decreasing in a stepped pattern to a single one. It is possible that this chequered technique may again represent some form of quilting, but, on the other hand, this may be no more than an elaboration of the stepped shoulder strap, one of the most constant features of such leather body-armour.

The stiff square back piece is more difficult to explain in terms of body-armour, for, attached at the shoulders, it is also looped round the left arm. This scapulary is decorated by an incised square which is divided internally by four smaller squares. An early illustration figured by Déchelette shows an even more complex pattern both on the shoulder-piece and round the hem (1914, 1531 ff., fig. 703). Such decoration may be compared to the highly ornate cuirasses on a number of Pergamon panels.

The oppidum of Entremont was captured by the Romans under the consuls Flaccus and Calvinus in 123 B.C. and, as it was deliberately razed at this time, much of the sculpture is incomplete. Entremont 1 survives in four fragments representing the torso and the upper part of the legs clothed by a short close-fitting leather tunic (Pl. 64, above). A long sword hangs from a thin leather belt and the suspension ring is also clearly shown. A feature of this cuirasse is the shoulder-piece or pauldron additional to and overlying the tunic; short sleeves form a part of this shoulder protection, and a recurrent idea is the placing of a decorative motif on

the front of this piece. On the torso under discussion the typical tripartite layout of the decoration may be noted; unfortunately the central feature has not survived, but the side curls may be compared to that of the second torso. One of the most important features of the Entremont 1 cuirasse is the technique used to represent it; the all-over pouncing on the front of the tunic is also found on the torso from Fox Amphoux (Var). (It might be possible to argue that the pouncing of Entremont 1 or the rings of the Fox Amphoux represent in fact the rings of suits of mail, but there is really no evidence to support this view and the effect achieved hardly looks like mail). The tripartite decoration on both is comparable not to the layout of mail suits, already discussed, but to the leather body armour of Entremont 2-5. A significant comparison of techniques may be made between Fox Amphoux and Vachères (Basses Alpes), the former, it is suggested, representing a pounced cuirasse, the latter, a mail suit with short sleeves and shoulder straps.

The shoulder protection of Entremont 2 is edged with a ribbing which suggests either a plaited or a stitched binding or a punched metal edging. This latter interpretation is strengthened by the use of this technique to show the neck-torc and it is possibly comparable to the punched ribs of the Trichtigen torc and the ribs of the Helden disc (conveniently illustrated by Klindt-Jensen, 1961b, figs. 60 and 59). The clasp on the front of the shoulder piece seems to represent an appliqué bronze with repoussé decoration, and a straight incised line at the base of the figure shows the edge of the bronze plate. The head and 'arms' of this central motif are comparable to the deities on the outside plates of the Gundestrup

bowl; the arms which are very schematically shown join squared shoulders and curl upwards to flank the head. Entremont 2-5 all portray the same form of shoulder protection but two other fragments are also of some interest, namely nos. 6 and 7. Although both are fragmentary, they show parts of swords which, like that on torso 1, are allied to La Tène II types, and, in addition, on no. 6 there is part of the fringed hem of a cuirasse. This rather suggests that even when only the shoulder protection is shown with certainty the pauldrons are, in fact, part of a two-piece armour along with a hemmed tunic. The fringed hem may be clearly illustrated by two other finds - the Mars figure from Gutenberg and the warriors of the Arnaldi situla (Pls. 59-60 and 28, below). The rib which edges such a cuirasse on Entremont 4 may be seen particularly clearly. The seated figure (no. 1) is the most outstanding example of such a two-piece garment with the collar and the short tunic picked out in the same way. Pauldrons fastened at the front, may most clearly be seen on Torso 5 where a spiral brooch keeps the two halves together. This group of sculptures forms a most important series illustrating part at least of the body armour of the Celtic tribes of S.E. France in the 2nd century B.C.

A stone of a pillar found in 1817 must also be mentioned, for although the representation of a cavalryman is now considerably abraded, an engraving, reproduced by Déchelette (1914, 1535f., fig. 707) shows a warrior astride his horse and what may be a human head suspended from the bridle. The warrior has a long sword at his right and brandishes a spear; the traces of a shoulder protection, of the kind just discussed, are just visible on this early illustration, but apart from

this, the warrior appears to be naked.

Two pieces of body armour are shown on the blocks of limestone found in a vineyard on the Plaine de la Brague, near Biot, Antibes, which survive to indicate the position of a trophy which commemorated a defeat over tribes almost certainly of Celtic stock. The Celtic ancestry of the body armour shown is confirmed by the carnyx, boar-standard and horned helmets also illustrated on the blocks. The body armour consists of a cuirasse with knobbed shoulder straps and kilted tunic (Block 1) and a fitted tunic with shoulder straps which forms the upper part of a pleated short kilted garment on Block 3. Although such body armour may be taken from classical, not Celtic models, such tunics must almost certainly have been adopted by the chiefs of the hinterland as well. The date of this monument would appear to be close to that of the Arch at Orange.

The cippus 'from the wood between Aix and Toulon' contains more Roman weaponry than native material, but the flecked or pounced cuirasse with short fringed sleeves and a rolled-over or rope-bound collar is of some interest in the present discussion as the all-over flecking is comparable to the closely pounced cuirasse of Entremont 1. The helmets and some of the shields may also be Celtic in origin.

There is an interesting representation of Celtic body armour on a coin of the Pictones (a tribe on the Atlantic coast S. of the River Loire) which portrays a standing warrior holding a dismantled boar standard in his right hand and supporting a spindle-shaped shield by his left (Pl. 64, below). He wears a short belted tunic which is shown with an all-over stipple, and it has been suggested that this is leaf armour or

possibly a mail suit, but a pounced or flecked leather garment in the style of some of the South French sculpture is a more likely interpretation. Shoulder protection is afforded by short padded sleeves apparently with a ribbed hem. The figure is also wearing a helmet apparently provided with cheek-pieces and a buffer torc (de la Tour, 1892/1965, pl. xiii, no. 4484; Lengyel, 1954, pl. x, no. 115). A coin of the Aedui, with the legend VIINOREX, also shows a warrior holding a boar standard and wearing a bowl helmet and a cuirasse with a thick belt which belongs to the type of body armour just discussed (la Baume, 1960, Taf. iv, no. 43).

But it does seem to be a linked mail garment which is worn by the figure of Mars on the Pillar from Mavilly (Côte-d-Or). The tunic is very short and the sculpture is now rather worn, but the technique of showing the mail is very similar to the Vachères sculpture (Pl. 28, above right); the wide shoulder cover which forms short sleeves of mail is much more comparable to the coin of the Pictones first discussed (Pl. 64, below). It is uncertain to what extent this sculpture should be accepted as Celtic in its entirety for although a number of the individual motifs certainly are, the stance of Mars and of the attendant 'goddess' behind seem to be very classical (Espérandieu, Recueil iii, no. 2067; Amy et al., 1962, 83, 88; Ross, 1967, 140f., fig. 99).

The statue from Vachères (Basses Alpes) shows a warrior leaning on his shield and a knob-hilted sword hanging from his right side (Pl. 28, above, right). Apart from the shield, the main interest of this statue is the very complete representation of a suit of mail which the warrior wears. The technique for showing the mail is almost identical to that on the Pergamon frieze, and this confirms the classical impression

which is suggested by the face and the stance. There is, however, no doubt that the warrior is a Celt, for round his neck there is a thick buffer torc. The mail suit is knee-length and is worn over a short tunic which might perhaps be leather; short sleeves and broad shoulder-straps are also clearly shown although the left shoulder is partially hidden by a short cloak or paludamentum. The shoulder straps are fixed by a knob or buttons at the bottom of each strap and partially hidden behind the mantle there is a cross fastening which would seem to be rather similar to those just discussed from Pergamon. At first glance the belt from which the sword hangs appears to be linked mail too, but closer examination shows that, what is portrayed is probably a leather belt, decorated with three rows of rivets or studs. The sculpture seems to belong to the 1st century B.C. and is important as it shows the presence of such body armour at this time in France, where very few fragments of mail have been recorded. The best documented is that of the Roman legionary burial from Chassenard (Déchelette, 1903, 242ff.).

A statue of a warrior discovered near the source of the River Bresque at Fox Amphoux (Var), suggests perhaps a similar association of a war god with water as do the votive finds from English rivers. The figure is fragmentary, but three features are clear - a long pounced leather tunic with a tripartite chest ornament, a belt with either a ring or a buckle and a shield decorated with a large central circle and at least three small circles in a vertical line, (comparable to that shown on the coin of the Pictones, (de la Tour,1892/1965, pl. xiii, no. 4460). The tunic is comparable to Entremont 1, although there is no distinct shoulder piece, and the layout

of the chest ornament, which consists of a larger spoked circle with two smaller flanking ones, is also similar. Benoit (1955, 45) suggests that this may have some apotropaeic quality, but it seems equally likely that such triple decoration should have its origin in the functional clasp of the cuirasses or corslets with shoulder straps discussed above. The shield is too fragmentary to provide any useful information. A sculptured torso from Russan (Gard) is also too weathered to provide additional material about body armour, but it is likely that some form of cuirasse is shown with the rigid, squared back-piece comparable to the Roquepertuse examples.

Three monuments portray warriors wearing an unusual form of head gear - a loose fitting and slightly flaring helmet which affords protection to the back of the neck and rests on the shoulders; these pieces come from Ste. Anastasie, Grézan and from Substantion. A vertical ridge from the crown of the helmet forms a distinct pigtail on the Grézan example, and interesting curled horns stand out in low relief on the Ste. Anastasie bust. The ridge is present on two helmeted heads from Substantion, and the first also has triangular cheek pieces; the second head is less well preserved but belongs to the ridged and flared helmet discussed above. It is normally suggested that these helmets are leather and their shape does seem to confirm this. There are no other similar pieces elsewhere, but the ridge helmet may be compared with that from Dalmas. It is possible that the broad neck protection is made necessary as much by the sun and heat as by more military considerations rather like the kepi of the foreign legion. The Ste. Anastasie piece also has a representation of some form of

tunic or corslet with shoulder straps and there is a band of linear decoration on the tunic itself. Below this there is a line of three lightly engraved horses, and a torc round the warrior's neck is also shown. Traces of paint on the face and garment of the figure are an interesting reminder that, as with classical sculpture, Celtic stone carving may also have been gaudily coloured.

The Grézan figure, apart from a broad ridged helmet of this unusual type and a neck torc, wears a most interesting corslet which appears to be related to the group described at the very beginning of this chapter. The essentially linear decoration links it to the East Alpine group, but there is of course the well known outlier of this type from the Seine at Saint Germain-du-Plain (Saône-et-Loire) which is shown both by photographs and drawing by Deonna (1934, figs. 26-28). The armholes on the Grézan corslet are edged by four ribs and the central decoration consists of a central 'sun' motif. Near the base of the corslet is a rib, edged with a small rectangular tongue pattern,and the breast plate from the Karlsruhe Museum has a rather similar edging (Pl. 66, below). There is no sign of the method of fixture at the shoulders or of side hinging,but a belt-clasp of an Iberian type adds interest to the piece. How this can act as a method of fixture for a metal corslet does not seem to have been considered by Déchelette (1914, 1535, fig. 706) or Benoit (1955 42). It seems possible that below this beading and tongue pattern there might be a leather belt which serves to keep the two sheets of bronze together and this is fastened by the four-pronged clasp. Such a belt with a clasp may be shown on one of the reliefs from Osuna, (Harmand, 1967, fig. 3).

Another possibility is that there might be a leather tab on the rear plate in which the clasp could engage. But such considerations are clearly incapable of proof either way.

Mail fragments from Britain have been discussed recently by Piggott and MacGregor in their re-publications of the metalwork from Carlingwark (Kirkcudbrightshire) and Stanwick (N. Riding, Yorkshire) respectively, and little can be added to these examinations (1952-3, 38ff; 1962, 28). Fragments of mail have been found from the tumulus at Lexden (Essex), from Maiden Castle (Dorset), Woodeaton (Oxfordshire) and Lydney (Gloucs.). The Lexden tumulus, Birchall's Tumulus C, is earlier than the other two tumuli, her A and B, but not pre-Augustan in date (1965, 254), and thus it provides the earliest evidence of body armour of this type in Britain. 'Scale-armour' has been mentioned from the First Vault at Stanfordbury (Bedfordshire) (Dryden, 1845, 17, art. 8; Smith, 1912, 10, fig. 5), but examination of the elbow-piece has shown it to be the strip boss of a shield and thus there may be some doubt whether the other fragments, which are no longer extant, are properly described; the 'elbow-piece' may indeed have been used as supporting evidence suggesting the function for even more uncertain pieces. It has been suggested that it is equally possible that such fragments may have been parts of the binding of the shield whose presence in the vault is at least certain.

The Lexden mail is the only piece of armament, apart from a possible iron ferrule, among the grave goods from this rich site (Laver, 1927, 246 ff., pls. liii - lv and lxii, fig. 4). The iron 'tyres' are not very convincing as swords, and there is a possible linch pin to suggest that there may have been chariot parts with which the tyres might be associated. The fragments of mail were found in the S.E. part of the burial pit; it consisted of links of wire with a diameter of 0.6cm. and the ends of each link have been butted (i.e. folded

together without a permanent join) rather than by welding or pinning. The mail suit has been deliberately rendered useless,for it has clearly been cut into pieces before deposition (Pl. 63, below). Two gilded silver studs, about 2.5cm. in diameter, have been attached to the mail, and one of these was ribbed and gilded. In one place two studs are reinforced from behind by a short bronze hinged strip. It seems to be most probable that all these studs have played a part in keeping the mail on and that they have been used in conjunction perhaps with thongs of leather. The fragments of mail are tightly packed and consolidated,and it seems possible that the leather found in the same area of the grave may belong to some form of inner padding. A bronze ring-buckle survives attached to one strap of leather and fragments of mail are found associated with it, as well as with the bronze palmette hinges, which Laver suggests may have been the attachments for the hinged hoop-handle of a bowl. It is unfortunate that the disturbed nature of the grave makes it impossible to assign some of the red enamel studs with greater certainty to some part of the ornament of the mail. It appears as if the latter has been cut into pieces and then distributed in piles along the S.E. perimeter of the burial-pit along with small quantities of bones and some enamel studs.

At Maiden Castle a triangular fragment of mail was found in a Belgo-Roman level; Wheeler suggests that it may have adorned ceremonial robe or head dress, but it is also possible that it is a votive gift to a temple rather like the small models already discussed (1943, 284 fig. 95, 6). The small triangular fragments of mail from the temple at Lydney may have a similar function. The Maiden Castle mail is

composed of butted links of bronze which like those from Lexden were not riveted or closed in any permanent way.

The fragments from Lydney were found in the series of excavations before those directed by the Wheelers; the pieces seem to be deliberately triangular with long bands of mail extending from one edge reminiscent of the epaulette and sleeve decoration of imperial military uniforms. There is also a piece with a ring at one end and a hook at the other; it might be a girdle or belt chain. If the triangular pieces and strips did not form part of some sort of decoration, perhaps of a leather battle dress, there is little to suggest that they are in fact of military origin (Wheeler and Wheeler, 1932, 91, pl. xxxb).

The Carlingwark pieces survive as a number of fragments, and there is no information about studs for fixing or decoration studs apart from a possible hook to which some corroded fragments of mail adhere, but there is nothing to suggest that this is anything other than accidental (Piggott, 1952-3, 11, 38f., c.74, 50, pl.ii). The technique of manufacture is important as the mail has been made of alternate rows of whole links punched out of a flat sheet and riveted links of wire. The same method of manufacture was employed for the Roman mail at Newstead which is the only other Scottish example known either from Roman or native sites. From the pit in the Principia No. 1 at Newstead were found quantities of mail reduced to a solid rusty mass. The mail was made of links of iron wire 6.5mm. in diameter in alternate rows of welded joins and hammered-and-riveted joins. Curle noted a single bronze ring within the mass and suggests that it may have been decorative. From the floor level at the west end

of the storehouse (Block XVI) came two fragments of bronze mail, in which the alternating rows are of differing sizes, the one 6mm. in diameter, the other 4mm. in diameter, and the former has riveted ends.

One of the interesting features of the Stanwick mail is the similarity of the lyre-loop by which it has been held together to the loop from the legionary burial at Chassenard (Allier) (Déchelette, 1903, 245, figs. 5 and 6). The recent republication of the Stanwick fragments has covered this most completely and also includes reference to further Roman finds not discussed here (MacGregor, 1962, 28, 49, 52, nos. 117-120, fig. 4).

There is no evidence of leather or plate bronze body armour from Britain, but it must have existed however rarely, for Statius records that Vettius Bolanus who was governor of Britain from 69-71 A.D. took a breast plate from a British king as part of a trophy (Silvae, V, ii, 147ff.).

A number of early examples of greaves, never an important item in Celtic armament, may be noted; from Roquefort (Alpes-Maritimes) comes a greave which may be 6th or 5th century B.C. and of comparable origin to the corslet from St. Germain du Plain. The greave was in a private collection in Lyon but it has not been traced; a plaster copy however is in the Musée National at St. Germain-en-Laye. The greave has been made useless by being punctuated all over by a series of jabs; it was found with a bracelet, but it is not known whether they represent a burial or a votive deposit (Clerc, 1927, 25g, fig. 62). A rather earlier greave has recently been discovered in a votive deposit in the Aven Plérimond and these pieces are of some interest because of the possibility that the Hirschlanden figure of 6th to 5th century B.C., may be shown with ridged greaves covering the shins. Although this piece owes much to the contacts with the North Adriatic area, with the only comparable helmets found in the lower Po valley, greaves are not commonly found in this area, but may be clearly seen on a stone sculpture from Ribič pri Bihaću at a rather later date, possibly even the 1st century B.C. (Situla Catalogue, 1962, 113, pl. 50). A pair of greaves of 5th century date come from a most important grave from Sesto Calende associated with a bowler hat helmet, parts of a chariot, a spear head and butt, and an antenna sword. It has been suggested that the burial at San Martino in Gattara, of mid 5th century date, may be that of one of the earliest Celtic invaders of N. Italy, and a single greave of Etruscan origin was discovered in the grave - surely booty or even stripped from the body of a dead foe. Such examples stress the types of weapons used in areas on which the Celtic world impinged

rather than show the Celtic arms themselves. A similar situation may be shown in the 3rd century B.C. in the Eastern Celtic area where the greaves from the Ciumeşti burial already discussed are probably pieces from a Black Sea Greek source (Pl. 63, above).

Greaves are shown twice on the Pergamon trophy (Bohn, 1885, 107, pls. xlv, 1 and xlix, 11); on the former section the greaves afford protection for the knee as well as the shin and two leather binding straps are depicted, one just below the knee cap and the other at the ankle. The second part of the frieze is fragmentary, and the attribution is rather tentative. Only one comparable piece might be noted from the well dated grave at Assenovgrad in Southern Bulgaria (Ivanov, 1948, 107, fig. 79) where a pair of greaves covering knee and foreleg were found with a Phrygian helmet and a torc of three twisted strands. Both greaves are stamped in Greek in a form which dates to the late 5th or first half of the 4th century B.C. The Ciumeşti greaves are rather similar to these but they are more naturalistic in their representation of veins and muscles; a comparable portrayal of the muscles and the knees is found on the Pergamon pieces suggesting that, even if Greek in style, such greaves may have been worn by the Celts in their final battles in Asia Minor.

CHAPTER 8

CONCLUSIONS

This thesis has sought to examine the helmets, shields and body armour of Iron Age Britain in the light of continental examples. This is a comparatively new approach, for in the past the British helmets and shields have always been studied in isolation, and often they have been examined as works of art rather than weapons. This approach has only been partly successful, for although the helmets may be linked to those on the continent, the British shields can be compared in only the most general terms with continental examples. Many earlier students of Celtic armour, particularly those who, like Déchelette and Jacobsthal, have been concerned with its place in a much broader field, have tended to seize on a number of the more spectacular pieces and have ignored the large number of less artistic or even fragmentary examples. It is hoped that one of the more useful aspects of this thesis has been the inclusion of a large number of new helmets or fragments. As much information as possible has been gleaned from fragments of British shields and the representations of them; this has helped to counterbalance the influence of the more magnificent parade or votive arms.

The discussion and attempted classification of continental helmets have included a large number of new examples, and they have been drawn from as wide a geographical area as possible. The various classes of helmet are here differentiated by their shape, their decoration, the metal used in their manufacture and the use or absence of cheek-

pieces or chin-straps. These groups of helmets may be shown to have comparatively compact distributions and to possess a certain chronological cohesion, where it has been possible to suggest a date. It has been suggested that there are three main groups of Celtic helmets found in the area North of the Alps and in Eastern Europe.

(i) Conical helmets of thin beaten bronze, or in some cases of leather, are mainly associated with chariot burials in the Marne department of France (with a number of outliers in the Austrian Alps). These date to the later 5th century B.C., and the use of this helmet type seems to continue into the 4th century B.C. Although the origin of this type must remain uncertain, the weight of distribution in the Marne may suggest that these helmets are a development of the local Bronze Age pointed helmet. The ritual cart from Strettweg shows that an Eastern influence upon this type is also possible; but as the helmets of these warriors are plain, such an influence is less likely to come via Italian sources. The conical helmets, such as La Gorge Meillet, provide little practical protection to the head both because of their height and because of the thinness of the bronze. They represent par excellence the helmet as an object of prestige, mainly to add magnificence to a parade. Like the chariot-burials in which they are most often found, such conical helmets illustrate the material culture of the warrior aristocracy and, as such, cannot be taken to represent the battle head-gear of the warrior bands as a whole.

(ii) The second group of Northern helmets appears to represent the adoption of the more practical types which

the Celtic warriors and armourers found in use in Italy about the 4th and 3rd centuries B.C. Included in this category are the Amfreville helmet and two classes which have been distinguished here for the first time - the Castelrotto and Batina groups; these date from about the 3rd and 2nd centuries B.C. These Northern types appear to be variations of the Italian 'jockey-cap' helmet, a number of examples of which have also been found to the North of the Alps. The Castelrotto type appears to be the earlier; the Batina examples which have decorated side-pieces are an off-shoot of a specialised type illustrated by the helmets from Umbria and Gottolengo and may be rather later. These are rather more practical examples of head-gear and would provide considerable protection to the crown, particularly with the addition of inner padding. Cheek-pieces are introduced at this time and are a further suggestion that increased cover was desired. The comparatively compact distribution of helmets of Castelrotto and Batina types, in the Alps and in Rumania respectively, shows that the work-shops and armourers are localised to these areas. Indeed, in view of the small number involved it is possible that the same armourers were responsible for a number of examples within each type working to a standard pattern. The hoards or deposits of metal-work in which such helmets have been found may well be part of the stock-in-trade of such itinerant craftsmen.

(iii) The third main group comprises the classes of helmet labelled here Agen and Coolus; these appear to show the influence of Roman types of helmet, and there are a

number of examples whose Celtic origin may be uncertain. These types are of 1st century B.C. to 1st century A.D. date.

It is the Coolus class, found exclusively without helpful context, which appears to offer the best continental parallels for the British helmets from Ogmore Down, Waterloo Bridge and the unprovenanced example in the British Museum. The lost helmets from Ogmore Down may be linked to this class because of the shape of the cap and the pair of ribs at the base of the cap, and also because of the use of what is here interpreted as a hinged chin-strap. The Waterloo Bridge helmet, although an elaborate and presumably ritual piece, is allied to the Coolus class because of the shape of the cap, and the chin-strap attachment. Both these helmets are most likely to be of 1st century B.C. date. The helmet said to be 'from the North of England' is a Brigantian piece dating to about the middle of the 1st century A.D.; it seems to show an amalgam of Roman and native features.

The evidence for the use of the shield by the continental Celtic tribes has also been examined, and it has been suggested that the invading Celts adopted the weapons and copied the techniques of the Italian peoples. The shield probably increased in importance as a defensive weapon as the chariot disappeared from the battle-field. But the use of perishable material for the shield-boards means that the evidence for their shape is very fragmentary and for their decoration almost totally lacking. A tentative division into types has been suggested, but these have less chronological or geographical significance than the helmet

types mentioned above. The earliest are those with a simple mid-rib; rather later the central part of the rib was protected by a metal strip, and circular bosses appear on the latest types. The sculptured representations of shields show, however, that even the earliest type continued to be used until the 1st century A.D.

Most of the British shields stand completely apart from the continental examples because of their use of elaborate bronze decoration. The highly ornamented bronze-covered shields from the Rivers Thames and Witham are quite unique. An attempt has been made to evaluate the structural features of the shields - the boss, the spina and, where possible, the shape, along with a consideration of the art styles shown on them. The resultant typology of the strip-boss shields is, of course, a subjective interpretation. The pieces from Tal-y-llyn, Llyn Cerrig Bach, Grimthorpe and Moel Hirradug seem to show the possibilities of elaboration of the simple strip-boss to one with crescentic side-decoration. They extend in date from the 2nd century B.C. to the first part of the 1st century A.D. It is clear that the dating of this group is a matter of some controversy.

The parade shields, which all possess round bosses, have here been discussed mainly from an artistic viewpoint, but the boar which was present on the first Witham shield is a useful reminder of the emblazoned devices which must have existed on many practical shields too. The round bosses of the battle-shields from Snailwell, Polden Hill and Humsbury probably date from the 1st century A.D., and they owe their shape to late La Tène and Roman forms. The long oval

shape of the British shields of the 1st century A.D. is illustrated consistently on the Roman auxilliary grave stelai, and a mid-rib is shown on at least two examples. This shape is also demonstrated on a certain number of small shield-models.

By the 2nd century, however, in Northern Britain there appears a distinct shield type, rather more rectangular and with a rounded central boss. This type, surely the result of the influence of Roman weapons, is shown on the two Antonine Wall distance slabs and on a number of small sculptures of Celtic war-gods of similar and later date. A leather shield from Clonoura, Co. Tipperary is linked to this group because of its shape, and the illustration of a shield of exactly this type on the Pictish symbol stone at Newton of Lewesk shows that this type continued in use into about the 6th and 7th centuries A.D.

Body armour forms the final section of this study, and the evidence for it has in many ways proved the least satisfactory. There are three main groups of body armour- bronze corslets, leather cuirasses and mail shirts. Bronze corslets cannot have been a common sight in the Celtic armies and the example from the vault at Canosa may be a plundered Greek piece, and those on the Pergamon trophy may not necessarily be Celtic. Leather cuirasses with ornamental shoulder-straps are illustrated by a number of bronze figurines (Gutenberg). Suits of mail, found on the Pergamon trophy and at Vachères, were also secured by decorated shoulder-straps; both the mail and the shoulder-strap seem to be Eastern and possibly Scythian in origin. An exciting

Hallstatt find of mail from Brno-Židenice in Moravia demonstrates the possible contact of Celtic and Scythian tribes. The manufacture of mail by the Celts is certainly earlier than its use by the Romans. It is possible that quilted armour has been represented on the sculpture from Roquepertuse and on the Gundestrup cauldron. There is no evidence, however, for leather or plate armour from Britain, and the fragments of mail are late and uninformative.

It has been shown that the impact of the military techniques of their adversaries brought about changes in the shape and decoration of the weaponry of the Celtic tribes. The helmets and shields, here discussed, illustrate in some instances the Celtic delight in colourful display and rich ornament and in others the heavy practical arms of a people harassed by constant warfare.